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TRAFFIC SPEED REPORT

NO. 75

DEC. 1962

NO. 26

by

D.E. DILLARD

Joint Highway Research Project

PURDUE UNIVERSITY
LAFAYETTE INDIANA

Progress Report

TRAFFIC SPEED REPORT NO. 75

TO: K. B. Woods, Director
Joint Highway Research Project

December 18, 1962

FROM: H. L. Michael, Associate Director
Joint Highway Research Project

File: 8-3-3
Project: C-36-10C

Attached is "Traffic Speed Report No. 75". This is a report of the only speed study made in 1962 on the trends in traffic speeds on free-flowing rural arterial highways. The data will also be made available to the Bureau of Public Roads for inclusion with other states in their annual speed trend study.

The study and report were performed by Mr. David Dillard, Graduate Assistant on our staff, under the direction of Professor H. L. Michael.

The report is presented for the record and it is requested that approval be granted to distribute copies to the Bureau of Public Roads, the Indiana State Police, the Office of Traffic Safety and the Traffic Safety Foundation in addition to that normally done.

Respectfully submitted,

Harold L. Michael

Harold L. Michael, Secretary

HLM:kmc

Attachment

Copy:

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Progress Report

TRAFFIC SPEED REPORT NO. 75

by

D. E. Dillard
Research Assistant

Joint Highway Research Project
File: 8-3-3
Project: C-36-10C

Purdue University
Lafayette, Indiana

December 18, 1962

TRAFFIC SPEED REPORT NO. 75

Introduction

This report is an analysis of spot-speed observations made during July and August 1962. All observations were made of free-moving vehicles on level, tangent sections of rural highways during daylight hours and under favorable weather conditions. Speeds were recorded to the nearest mile per hour. Data were collected for three classifications of highway -- two lane, four lane and interstate. Previous Traffic Speed Reports have indicated that four speed stations in each classification would provide a reasonable estimate of average speeds at a moderate cost. Locations of the stations used are shown below:

Locations of Speed Stations

Interstate Highways

1. I-80 0.7 miles east of junction of SR 912
2. I-65 1.0 mile north of junction of SR 334
3. I-74 1.0 mile east of junction of Post Road
4. I-65 2.9 miles north of junction of SR 160

Four Lane Highways

5. US 31 1.2 miles south of junction of SR 38
6. US 52 1.0 mile south of south junction of SR 28
7. US 41 1.0 mile north of south junction of SR 2
8. US 52 1.0 mile north of Klondyke

Two Lane Highways

9. US 41 1.0 mile north of Boswell
10. US 52 2.0 miles north of Templeton
11. US 31 3.0 miles south of Rochester
12. SR 25 0.7 miles west of Americus

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Equipment and Field Procedure

The data for this study were obtained by using an Electromatic Radar Speed Meter. The meter was placed approximately three feet from the edge of the pavement at an angle of less than 10° with the highway centerline. Speed inaccuracies are negligible at small angles, and corrections were unnecessary.

Since the radar equipment will not operate properly if the voltage varies more than plus one volt or minus one-half volt from the optimum twelve volts, the battery voltage was checked periodically and maintained within the proper range. Also, the meter was periodically checked with a 60 mile per hour tuning fork to maintain the correct calibration.

The observers and equipment were concealed from traffic as much as local conditions permitted in order to minimize their effect upon vehicle speed.

Procedure and Analysis

The data from previous studies indicated that 215 observations would allow an estimate of the average passenger car speed within plus or minus one mile per hour at a confidence level of 95%. Similarly, 35 observations of heavy trucks would permit an estimation of average truck speed within plus or minus two miles per hour at a confidence level of 90%. These minimum sample sizes were used for this study and consequently the average speeds recorded at the stations are estimates, with possible error and confidence as noted, of the true average speeds at those locations under the conditions existing at the time of observation.

Passenger car data were classified into three groups - Indiana, out-of-state, and all passenger cars. Trucks have been grouped into a

"light" (less than 5,000 pounds gross weight) or "heavy" (more than 5,000 pounds gross weight) classification in order to compare observed speeds with legal speeds. Speed limits in the state of Indiana are: 65 miles per hour for passenger cars and light trucks; 55 miles per hour for heavy trucks on divided highways with a median width of 20 feet or more, and 50 miles per hour for heavy trucks on other highways. All four lane and interstate highways observed in this study were divided by a median at least 20 feet in width.

Summary

Field data for each station are summarized in Tables 1 through 12; Tables 13, 14, 15 and 16 are summaries of interstate, four lane, two lane, and all highways, respectively. Figures 1 through 16, inclusive, are cumulative frequency curves computed and drawn from the corresponding tables. Spot-speed trend data are recorded in Table 17. The mean speed of passenger cars appears to have become nearly stabilized. The graphical presentation (Figure 17) of rural speeds shows that the variations obtained by different studies are minor. The 85th percentile speed also shows a trend towards becoming stable - at approximately the 65 miles per hour speed limit.

Truck speeds appear to be slowly increasing. The 85th percentile speed for heavy trucks on divided highways is 57.7 miles per hour as compared to the 55 miles per hour speed limit, while on undivided highways it is 55.1 miles per hour as compared to the 50 miles per hour speed limit. This would indicate that fully one-third of the heavy trucks may be exceeding the speed limit. However, this upward trend in truck speeds also applies to the 15th percentile speed and results in a reduction in the speed differential between trucks and passenger cars.

Study of the Interstate highway observations shows passenger car speeds at three of the four stations which are similar to those obtained on other four lane highways. The lower speeds (approximately 5 mph) obtained at station no. 1 (I-80 near Gary) were probably due to the high-volume suburban characteristics of the facility.

Recommendations

It is recommended that the minimum station sample size for future studies continue to be 215 passenger cars and 35 heavy trucks. It is further recommended that the four stations on each type of highway be continued in future studies. The techniques of securing speed data should be carefully and continuously reviewed by the observers in order to minimize observation effects which could cause a station to station variance.

TABLE 1 SPEED DATA

Station 1 Highway I-80 Location 0.7 mi E of SR 912

No. of Lanes 4 Type of Surface PCC Weather Cloudy Day

This Observation
Date July 16, 1962
Time 11:15 - 11:45 AM

Last Previous Observation (Speed Report No. 74)
Date July 19, 1961
Time 11:15 AM

		PASSENGER CARS						TRUCKS					
		All		Indiana		Non-Indiana		All		Less than 5000 pounds		5000 pounds or more	
OBSERVATION		Last	Present	Last	Present	Last	Present	Last	Present	Last	Present	Last	Present
All vehicles	No. of vehicles obs.	215	230	111	121	104	109	75	61	13	10	62	51
	Average speed (m.p.h.)	56.0	55.0	55.7	53.7	56.4	56.4	51.9	50.3	56.7	52.5	50.9	49.8
	Standard deviation	6.97	5.90	7.91	5.97	6.12	5.54	5.94	6.11	7.00	9.34	5.10	5.13
	% of vehicles traveling at or less than 24 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	29 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0
	34 m.p.h.	0.5	0.4	0.9	0.8	0.0	0.0	0.0	3.3	0.0	10.0	0.0	2.0
	39 m.p.h.	0.9	0.9	1.8	1.7	0.0	0.0	4.0	3.3	0.0	10.0	4.0	2.0
	44 m.p.h.	6.1	4.3	9.0	6.6	2.9	1.8	8.0	3.8	7.7	10.0	8.1	9.8
	49 m.p.h.	17.7	15.2	20.7	19.8	14.4	10.1	38.7	39.4	15.4	40.0	42.5	39.2
	54 m.p.h.	42.8	43.4	45.1	52.9	40.4	33.0	70.7	82.0	38.5	50.0	77.4	88.2
	59 m.p.h.	71.2	80.4	70.3	86.7	72.1	73.4	92.0	96.6	61.5	80.0	95.4	100.0
	64 m.p.h.	93.0	95.7	91.9	97.4	94.2	93.6	98.7	98.4	92.3	90.0	100.0	--
	69 m.p.h.	97.7	99.5	97.3	100.0	98.1	99.1	100.0	100.0	100.0	100.0	--	--
	74 m.p.h.	100.0	100.0	100.0	--	100.0	100.0	--	--	--	--	--	--
	79 m.p.h.	--	--	--	--	--	--	--	--	--	--	--	--
	84 m.p.h.	--	--	--	--	--	--	--	--	--	--	--	--
	89 m.p.h.	--	--	--	--	--	--	--	--	--	--	--	--
Bound	No. of vehicles obs.	105	116	46	57	59	59	34	30	6	4	28	26
	Average speed	55.6	56.3	54.8	53.6	56.3	56.9	55.6	51.0	55.5	54.5	49.6	50.7
Bound	No. of vehicles obs.	110	114	65	64	45	50	41	31	7	6	34	25
	Average speed	55.1	52.7	55.1	52.0	55.0	55.9	51.0	48.8	55.0	47.3	51.1	49.0

TABLE 2 SPEED DATA

Station 2 Highway I-65 Location 1.0 North of SR 334

No. of Lanes 4 Type of Surface PCC Weather Clear, dry

This Observation
Date Aug. 13, 1962
Time 11:00 AM-12:30 PM

Last Previous Observation (Speed Report No. 74)
Date July 12, 1961
Time 9:15 - 9:45 AM

		PASSENGER CARS						TRUCKS					
		All		Indiana		Non-Indiana		All		Less than 5000 pounds		5000 pounds or more	
OBSERVATION		Last	Present	Last	Present	Last	Present	Last	Present	Last	Present	Last	Present
All vehicles	No. of vehicles obs.	217	226	174	132	43	94	55	64	9	12	46	52
	Average speed (m.p.h.)	58.6	61.3	58.7	60.8	57.6	62.0	53.5	54.0	60.3	57.4	52.2	53.3
	Standard deviation	6.65	6.75	7.42	6.97	6.24	6.40	6.28	6.03	7.55	8.38	4.77	5.14
	% of vehicles traveling at or less than 24 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	29 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	34 m.p.h.	0.5	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	39 m.p.h.	1.4	0.4	1.7	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0
	44 m.p.h.	3.2	1.3	3.4	1.5	2.3	1.1	0.1	3.1	0.0	0.0	10.9	3.8
	49 m.p.h.	8.8	3.5	9.2	4.5	7.0	2.1	23.6	21.9	11.1	25.0	41.1	21.2
	54 m.p.h.	29.5	13.3	24.6	17.4	37.2	7.5	67.2	56.3	33.3	33.4	74.0	61.5
	59 m.p.h.	59.5	38.5	58.6	40.9	62.9	35.1	87.1	86.0	33.3	66.7	97.8	90.4
	64 m.p.h.	85.7	69.8	83.9	73.5	93.0	65.0	94.5	93.8	77.7	75.0	97.8	98.0
	69 m.p.h.	94.0	90.2	93.1	90.1	97.6	90.4	98.0	98.5	88.8	91.7	100.0	100.0
	74 m.p.h.	98.0	98.2	98.1	97.7	97.6	99.0	100.0	100.0	100.0	100.0	--	--
	79 m.p.h.	100.0	99.1	100.0	99.2	100.0	99.0	--	--	--	--	--	--
	84 m.p.h.	--	100.0	--	100.0	--	100.0	--	--	--	--	--	--
	89 m.p.h.	--	--	--	--	--	--	--	--	--	--	--	--
Bound	No. of vehicles obs.	108	116	88	69	20	47	--	38	--	4	20	34
	Average speed	57.9	60.3	58.1	60.0	57.0	60.9	--	52.6	--	54.2	52.0	53.0
Bound	No. of vehicles obs.	109	110	86	63	23	47	--	26	--	8	26	18
	Average speed	59.0	62.3	59.3	61.6	58.[illegible]	[illegible]	--	54.7	--	[illegible]	[illegible]	53.7

TABLE 3 SPEED DATA

Station 3 Highway I-74 Location 1.0 mi E Post Road

No. of Lanes 4 Type of Surface PCC Weather Clear Day

This Observation
Date Aug. 8, 1962
Time 11:00 AM - 1:00 PM

Last Previous Observation (Speed Report No. 74)
Date July 13, 1961
Time 3:30 - 4:15 PM

			PASSENGER CARS						TRUCKS					
			All		Indiana		Non-Indiana		All		Less than 5000 pounds		5000 pounds or more	
OBSERVATION			Last	Present	Last	Present	Last	Present	Last	Present	Last	Present	Last	Present
All vehicles	No. of vehicles obs.		223	221	118	183	35	38	53	66	17	12	36	54
	Average speed (m.p.h.)		55.8	55.2	55.4	58.9	57.6	60.6	51.8	53.3	54.2	57.0	50.7	52.5
	Standard deviation		6.83	6.62	6.75	6.77	5.69	5.80	6.86	7.56	7.48	8.25	5.60	7.22
	% of vehicles traveling at or less than	24 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		29 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		34 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		39 m.p.h.	1.8	0.0	1.6	0.0	2.9	0.0	3.8	1.5	5.9	0.0	2.8	1.8
		44 m.p.h.	7.2	1.8	7.4	2.2	5.7	0.0	13.8	15.1	5.9	16.7	16.7	14.8
		49 m.p.h.	16.6	8.1	18.1	8.7	8.6	5.3	35.8	31.8	29.4	16.7	38.9	35.1
		54 m.p.h.	42.2	22.1	43.6	24.0	34.3	13.1	75.5	54.5	58.8	25.0	83.3	61.1
		59 m.p.h.	75.3	49.3	78.2	52.5	60.0	34.2	88.7	78.8	70.6	58.4	97.2	83.3
		64 m.p.h.	94.2	80.0	94.7	79.8	91.4	81.5	96.2	92.5	94.1	83.4	97.2	94.4
		69 m.p.h.	97.8	95.0	97.9	94.5	97.1	97.4	100.0	100.0	100.0	100.0	100.0	100.0
		74 m.p.h.	99.1	99.5	99.5	100.0	97.1	97.4	--	--	--	--	--	--
		79 m.p.h.	100.0	100.0	100.0	--	100.0	100.0	--	--	--	--	--	--
		84 m.p.h.	--	--	--	--	--	--	--	--	--	--	--	--
		89 m.p.h.	--	--	--	--	--	--	--	--	--	--	--	--
Bound	No. of vehicles obs.		120	112	100	92	20	20	--	33	--	7	16	26
	Average speed		55.4	59.4	54.8	59.0	58.5	61.0	--	54.7	--	57.7	50.0	53.9
Bound	No. of vehicles obs.		103	109	88	91	15	18	--	33	--	5	20	28
	Average speed		56.3	59.0	56.3	58.8	56.5	60.1	--	51.8	--	56.0	51.3	51.1

TABLE 4 SPEED DATA

Station 4 Highway I-65 Location 2.9 mile N of SR 160

No. of Lanes 4 Type of Surface PCC Weather Clear Dry

This Observation — Date July 19th, 1962 — Time 1:00-2:00 p.m.

Last Previous Observation (Speed Report No. _____) — Date August 23, 1961 — Time 2:30-4:20 p.m.

			PASSENGER CARS						TRUCKS					
			All		Indiana		Non-Indiana		All		Less than 5000 pounds		5000 pounds or more	
OBSERVATION			Last	Present	Last	Present	Last	Present	Last	Present	Last	Present	Last	Present
All vehicles	No. of vehicles obs.		218	231	—	125	—	106	65	92	10	11	55	81
	Average speed (m.p.h.)		62.2	60.0	--	60.9	—	58.9	52.4	54.4	53.5	55.6	52.3	54.3
	Standard deviation		6.64	6.32	—	6.15	--	6.38	5.26	5.58	5.83	5.96	5.06	5.44
	% of vehicles traveling at or less than	24 m.p.h.	0.0	0.0	--	0.0	--	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		29 m.p.h.	0.5	0.0	—	0.0	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		34 m.p.h.	0.5	0.0	--	0.0	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		39 m.p.h.	0.5	0.0	—	0.0	--	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		44 m.p.h.	1.4	0.9	—	0.0	—	1.9	9.2	2.2	10.0	0.0	9.1	2.4
		49 m.p.h.	2.8	4.3	—	2.4	--	6.6	32.3	18.5	30.0	9.0	32.7	19.7
		54 m.p.h.	11.5	17.7	—	15.2	--	20.8	64.6	51.1	50.0	54.5	67.3	50.6
		59 m.p.h.	32.6	48.9	--	42.4	—	56.6	95.4	83.7	90.0	72.7	96.4	85.2
		64 m.p.h.	66.5	75.7	--	70.5	--	82.0	100.0	95.6	100.0	90.9	100.0	96.3
		69 m.p.h.	91.3	95.5	--	92.8	--	94.3	---	100.0	---	100.0	---	100.0
		74 m.p.h.	98.2	99.6	--	99.2	—	100.0	---	---	---	---	---	---
		79 m.p.h.	100.0	100.0	—	100.0	--	---	---	---	---	---	---	---
		84 m.p.h.	---	---	--	---	--	---	---	---	---	---	---	---
		89 m.p.h.	---	---	---	---	—	---	---	---	---	---	---	---
N Bound	No. of vehicles obs.		110	114	--	56	—	58	29	46	6	5	23	41
	Average speed		62.0	60.3	—	59.8	—	60.9	50.9	52.7	54.2	54.0	50.1	53.7
S Bound	No. of vehicles obs.		108	117	—	69	—	48	36	46	4	6	32	40
	Average speed		62.4	59.6	—	61.8	--	56.5	53.6	55.2	52.5	57.0	53.8	5[illegible]

TABLE 5 SPEED DATA

Station 5 Highway U. S. 31 Location 1.2 mile South of SR 38

No. of Lanes 4 Type of Surface AC Weather clear, dry

This Observation
Date August 8, 1962
Time 2:00 to 4:00 PM

Last Previous Observation (Speed Report No. _____)
Date July 12, 1961
Time 1:00 to 2:00 PM

		PASSENGER CARS						TRUCKS					
		All		Indiana		Non-Indiana		All		Less than 5000 pounds		5000 pounds or more	
OBSERVATION		Last	Present	Last	Present	Last	Present	Last	Present	Last	Present	Last	Present
All vehicles	No. of vehicles obs.	218	232	166	190	52	42	48	47	12	9	36	38
	Average speed (m.p.h.)	59.6	60.6	59.6	60.3	59.5	62.0	52.4	52.3	58.8	56.4	50.3	51.3
	Standard deviation	7.56	6.31	7.81	6.38	7.25	5.85	6.56	6.63	6.17	8.45	6.33	5.84
	% of vehicles traveling at or less than 24 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	29 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	34 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	2.8	0.0
	39 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	6.3	0.0	0.0	0.0	8.3	0.0
	44 m.p.h.	2.7	0.4	2.4	0.5	3.9	0.0	12.5	10.6	0.0	11.1	16.7	10.5
	49 m.p.h.	10.1	3.9	10.8	4.7	7.7	0.0	31.2	36.1	0.0	22.2	41.6	39.4
	54 m.p.h.	25.6	17.2	25.7	17.9	25.0	14.3	68.8	66.0	33.3	33.3	80.5	73.7
	59 m.p.h.	52.7	40.9	53.6	43.2	50.0	30.9	87.5	87.2	66.6	66.6	94.5	92.1
	64 m.p.h.	79.3	72.0	78.2	74.2	82.6	61.9	95.7	93.5	83.4	77.7	100.0	97.4
	69 m.p.h.	92.5	93.1	93.4	93.1	90.4	92.8	97.8	100.0	91.6	100.0	—	100.0
	74 m.p.h.	98.0	99.6	97.5	99.4	100.0	100.0	100.0	--	100.0	--	--	--
	79 m.p.h.	99.0	100.0	98.7	100.0	--	--	--	--	--	--	--	--
	84 m.p.h.	99.0	--	98.7	--	--	--	--	--	--	--	--	--
	89 m.p.h.	99.0	--	98.7	--	--	--	--	--	--	--	--	--
N Bound	No. of vehicles obs.	106	112	80	92	26	20	23	19	6	4	17	15
	Average speed	59.7	60.2	60.6	59.8	57.1	61.8	55.1	53.8	29.2	60.3	53.7	52.0
S Bound	No. of vehicles obs.	112	120	86	98	26	22	25	28	6	5	19	23
	Average speed	59.4	61.1	58.6	60.8	61.9	62.2	49.9	51.3	58.3	53.0	47.2	50.9

TABLE 6 SPEED DATA

Station 6 Highway U.S. 52 Location 1.0 mile South of S. Jct. S.R. 28

No. of Lanes 4 Type of Surface AC Weather Cloudy Dry

This Observation
Date July 25, 1962
Time 3:00 - 4:00 PM

Last Previous Observation (Speed Report No. 7)
Date July 6, 1961
Time 3:00-4:00 PM

OBSERVATION			PASSENGER CARS						TRUCKS					
			All		Indiana		Non-Indiana		All		Less than 5000 pounds		5000 pounds or more	
			Last	Present	Last	Present	Last	Present	Last	Present	Last	Present	Last	Present
All vehicles	No. of vehicles obs.		218	221	138	141	80	80	77	64	14	11	63	53
	Average speed (m.p.h.)		59.8	59.9	60.4	59.6	58.7	60.4	51.9	51.0	54.3	52.9	51.3	50.6
	Standard deviation		6.63	6.68	7.24	6.35	5.11	6.34	6.00	6.05	5.06	6.64	6.10	6.15
	% of vehicles traveling at or less than	24 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		29 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		34 m.p.h.	0.0	0.4	0.0	0.7	0.0	0.0	1.3	0.0	0.0	0.0	1.6	0.0
		39 m.p.h.	0.5	0.4	0.7	0.7	0.0	0.0	2.6	3.1	0.0	0.0	3.2	3.8
		44 m.p.h.	1.8	1.8	2.9	2.1	0.0	1.3	14.3	14.1	7.1	9.0	12.7	15.1
		49 m.p.h.	5.5	5.0	7.7	5.7	1.3	3.8	33.8	43.8	21.4	36.4	36.5	45.3
		54 m.p.h.	22.4	17.6	21.0	17.7	25.0	17.5	64.9	67.2	42.8	54.5	69.8	69.8
		59 m.p.h.	50.9	46.6	43.5	50.4	63.7	40.0	96.1	92.2	92.9	81.8	96.9	94.3
		64 m.p.h.	81.5	78.7	77.5	80.2	88.7	76.3	100.0	100.0	100.0	100.0	100.0	100.0
		69 m.p.h.	93.6	93.7	91.4	93.6	97.5	93.8	---	---	---	---	---	---
		74 m.p.h.	98.5	98.7	97.8	97.9	100.0	98.8	---	---	---	---	---	---
		79 m.p.h.	100.0	100.0	100.0	100.0	---	100.0	---	---	---	---	---	---
		84 m.p.h.	---	---	---	---	---	---	---	---	---	---	---	---
		89 m.p.h.	---	---	---	---	---	---	---	---	---	---	---	---
N Bound	No. of vehicles obs.		106	101	73	61	33	40	52	22	8	7	44	25
	Average speed		61.1	60.3	61.9	59.6	59.3	61.3	53.3	51.4	51.9	53.4	52.6	50.8
S Bound	No. of vehicles obs.		112	120	65	80	47	40	25	32	6	4	19	28
	Average speed		58.2	59.5	58.6	59.5	58.2	59.6	49.9	50.6	57.5	52.0	48.1	50.4

TABLE 7 SPEED DATA

Station 7 Highway U. S. 41 Location 1 mile North of S Jct S.R. 2

No. of Lanes 4 Type of Surface PCC Weather Cloudy Dry

This Observation
Date July 16, 1962
Time 2:00 - 3:00 PM

Last Previous Observation (Speed Report No. 74)
Date July 19, 1961
Time 1:20 PM

			PASSENGER CARS						TRUCKS					
			All		Indiana		Non-Indiana		All		Less than 5000 pounds		5000 pounds or more	
OBSERVATION			Last	Present	Last	Present	Last	Present	Last	Present	Last	Present	Last	Present
All vehicles	No. of vehicles obs.		217	226	102	100	115	126	78	50	12	7	66	43
	Average speed (m.p.h.)		57.8	58.9	58.1	59.3	57.5	58.5	50.8	52.6	54.6	57.0	50.2	51.9
	Standard deviation		7.67	7.01	7.25	6.76	6.29	7.25	5.75	5.12	8.53	5.00	4.20	4.81
	% of vehicles traveling at or less than	24 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		29 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		34 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		39 m.p.h.	1.4	0.0	2.0	0.0	0.9	0.0	2.6	0.0	8.3	0.0	1.5	0.0
		44 m.p.h.	2.8	1.8	4.9	3.0	0.9	0.8	15.4	4.0	16.7	0.0	15.2	4.7
		49 m.p.h.	11.1	8.0	10.8	5.0	11.3	10.3	42.3	30.0	25.0	0.0	45.5	34.9
		54 m.p.h.	33.2	27.4	32.4	22.0	33.9	31.8	79.5	60.0	50.0	28.6	84.8	65.1
		59 m.p.h.	61.3	53.5	56.9	52.0	65.2	54.8	94.9	96.0	66.7	85.7	100.0	97.6
		64 m.p.h.	88.9	80.0	86.3	80.0	91.3	80.1	98.7	98.0	91.7	85.7	——	100.0
		69 m.p.h.	96.3	93.8	95.1	95.0	97.4	92.8	100.0	100.0	100.0	100.0	——	——
		74 m.p.h.	99.5	98.7	100.0	99.0	99.1	98.4	——	——	——	——	——	——
		79 m.p.h.	100.0	99.6	——	99.0	100.0	100.0	——	——	——	——	——	——
		84 m.p.h.	——	100.0	——	100.0	——	——	——	——	——	——	——	——
		89 m.p.h.	——	——	——	——	——	——	——	——	——	——	——	——
N Bound	No. of vehicles obs.		106	114	50	55	56	59	——	25	——	5	30	20
	Average speed		58.2	57.5	59.3	57.5	57.1	57.5	——	52.2	——	57.0	50.0	51.0
S Bound	No. of vehicles obs.		111	112	52	45	59	67	——	25	——	2	36	23
	Average speed		57.4	60.2	56.9	61.3	57.8	57.5	——	53.0	——	57.0	50.3	52.7

TABLE 8 SPEED DATA

Station 8 Highway U. S. 52 Location 1 mile N. of Klondyke

No. of Lanes 4 Type of Surface PCC Weather Cloudy Dry

This Observation — Date July 3, 1962 — Time 2:45-4:00 PM

Last Previous Observation (Speed Report No. 74) — Date June 22, 1961 — Time 3:15 PM

		PASSENGER CARS						TRUCKS					
		All		Indiana		Non-Indiana		All		Less than 5000 pounds		5000 pounds or more	
OBSERVATION		Last	Present	Last	Present	Last	Present	Last	Present	Last	Present	Last	Present
All vehicles	No. of vehicles obs.	346	226	260	144	86	82	57	47	22	10	35	37
	Average speed (m.p.h.)	55.0	57.6	54.7	57.3	55.8	58.0	49.1	51.9	49.8	53.5	48.6	51.5
	Standard deviation	5.93	6.34	6.44	6.55	5.60	5.97	6.18	6.03	6.83	7.83	6.21	5.50
	% of vehicles traveling at or less than: 24 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	29 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	34 m.p.h.	0.3	0.0	0.4	0.0	0.0	0.0	1.8	0.0	4.6	0.0	0.0	0.0
	39 m.p.h.	1.5	0.4	1.9	0.7	0.0	0.0	5.3	0.0	4.6	0.0	5.7	0.0
	44 m.p.h.	5.8	3.5	6.5	3.5	3.5	3.7	28.1	8.0	27.3	10	28.6	8.1
	49 m.p.h.	17.3	9.7	19.2	11.1	11.6	7.3	57.9	36.2	50.0	30	62.9	37.8
	54 m.p.h.	51.7	25.7	53.9	28.5	45.4	20.7	77.2	72.4	72.7	70	80.0	72.9
	59 m.p.h.	80.4	63.3	80.0	64.0	81.4	62.2	98.3	89.4	95.5	70	100.0	94.5
	64 m.p.h.	95.1	87.5	95.4	88.2	94.2	86.5	100.0	95.7	100.0	90	—	97.3
	69 m.p.h.	98.8	98.2	98.8	97.9	98.8	98.8	—	100.0	—	100.0	—	100.0
	74 m.p.h.	100.0	99.6	100.0	99.4	100.0	100.0	—	—	—	—	—	—
	79 m.p.h.	—	100.0	—	100.0	—	—	—	—	—	—	—	—
	84 m.p.h.	—	—	—	—	—	—	—	—	—	—	—	—
	89 m.p.h.	—	—	—	—	—	—	—	—	—	—	—	—
Bound	No. of vehicles obs.	171	114	133	70	38	44	25	22	11	6	14	16
	Average speed	54.8	57.4	54.7	57.6	55.4	57.1	47.5	51.3	48.0	57.0	47.1	49.2
Bound	No. of vehicles obs.	175	112	127	74	48	38	32	25	11	4	21	21
	Average speed	55.1	57.8	54.8	57.1	56.0	59.1	50.3	53.4	51.6	48.3	49.4	53.2

TABLE 9 SPEED DATA

Station 9 Highway U. S. 41 PCC Location 1. 0 miles North of Boswell

No. of Lanes 2 Type of Surface Weather Clear Dry

This Observation
Date July 12, 1962
Time 9:30-11:30 AM

Last Previous Observation (Speed Report No. _____)
Date July 20, 1961
Time 2:30-4:25 PM

			PASSENGER CARS						TRUCKS					
			All		Indiana		Non-Indiana		All		Less than 5000 pounds		5000 pounds or more	
OBSERVATION			Last	Present	Last	Present	Last	Present	Last	Present	Last	Present	Last	Present
All vehicles	No. of vehicles obs.		216	224	98	124	118	100	64	75	11	17	53	58
	Average speed (m.p.h.)		54.8	56.8	55.2	57.3	54.4	56.3	48.4	50.2	50.7	52.9	48.0	49.4
	Standard deviation		6.35	7.22	7.15	7.46	5.63	6.90	5.49	7.65	7.48	10.79	4.60	6.27
	% of vehicles traveling at or less than	24 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		29 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	5.8	0.0	1.7
		34 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	5.8	0.0	3.4
		39 m.p.h.	0.9	0.9	2.0	0.0	0.0	2.0	6.3	6.7	18.2	5.8	3.8	6.9
		44 m.p.h.	6.5	4.0	7.1	4.0	5.9	4.0	29.7	16.0	27.3	23.5	30.2	13.8
		49 m.p.h.	19.4	14.3	20.4	14.5	18.7	14.0	56.3	42.7	27.3	29.4	62.3	46.6
		54 m.p.h.	55.1	35.3	53.1	33.9	56.8	37.0	89.1	74.7	63.6	52.9	94.3	81.0
		59 m.p.h.	78.2	67.9	72.4	64.5	83.1	72.0	100.0	93.3	100.0	76.5	100.0	98.3
		64 m.p.h.	94.9	86.6	92.9	83.9	96.6	90.0	—	97.3	—	88.2	—	100.0
		69 m.p.h.	99.1	95.1	98.0	94.4	100.0	96.0	—	98.7	—	94.1	—	—
		74 m.p.h.	100.0	99.1	100.0	98.4	—	100.0	—	100.0	—	100.0	—	—
		79 m.p.h.	—	100.0	—	100.0	—	—	—	—	—	—	—	—
		84 m.p.h.	—	—	—	—	—	—	—	—	—	—	—	—
		89 m.p.h.	—	—	—	—	—	—	—	—	—	—	—	—
N Bound	No. of vehicles obs.		113	114	50	55	63	59	—	36	—	6	30	30
	Average speed		53.7	55.9	54.3	56.1	53.2	55.6	—	43.7	—	52.7	46.0	47.8
S Bound	No. of vehicles obs.		103	110	48	69	55	41	—	39	—	11	33	28
	Average speed		55.9	57.9	56.1	[illegible]	55.8	57.1	—	51.6	—	[illegible]	[illegible]	51.1

TABLE 10 SPEED DATA

Station 10 Highway U. S. 52 Location 2 miles N of Templeton

No. of Lanes 2 Type of Surface AC Weather Cloudy Dry

This Observation
Date July 11, 1962
Time 2:30 - 4:00 PM

Last Previous Observation (Speed Report No. 74)
Date July 18, 1961
Time 2:15 PM

			PASSENGER CARS						TRUCKS					
			All		Indiana		Non-Indiana		All		Less than 5000 pounds		5000 pounds or more	
OBSERVATION			Last	Present	Last	Present	Last	Present	Last	Present	Last	Present	Last	Present
All vehicles		No. of vehicles obs.	215	221	97	94	118	127	63	63	8	12	55	51
		Average speed (m.p.h.)	56.3	57.4	57.4	57.5	56.4	57.4	48.9	50.7	51.9	51.6	48.4	50.4
		Standard deviation	6.10	5.95	6.48	5.92	5.19	6.00	4.49	5.90	4.58	7.82	4.38	5.43
	% of vehicles traveling at or less than	24 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		29 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		34 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	2.0
		39 m.p.h.	0.5	0.0	0.0	0.0	0.9	0.0	3.2	1.6	0.0	0.0	3.6	2.0
		44 m.p.h.	1.9	0.5	2.1	0.0	1.7	0.8	15.9	11.1	12.5	16.6	16.4	9.8
		49 m.p.h.	10.2	7.2	12.4	8.5	8.5	6.3	61.9	42.8	25.0	50.0	67.3	41.2
		54 m.p.h.	38.5	33.0	35.1	30.8	38.1	34.6	92.1	77.7	75.0	66.7	94.5	80.4
		59 m.p.h.	73.5	65.2	69.1	64.9	77.1	65.4	100.0	93.6	100.0	83.3	100.0	96.1
		64 m.p.h.	92.6	88.7	88.7	89.4	95.3	88.2	---	98.5	---	91.6	---	100.0
		69 m.p.h.	98.6	96.3	96.9	96.8	100.0	96.9	---	100.0	---	100.0	---	---
		74 m.p.h.	99.5	100.0	99.0	100.0	---	100.0	---	---	---	---	---	---
		79 m.p.h.	100.0	---	100.0	---	---	---	---	---	---	---	---	---
		84 m.p.h.	---	---	---	---	---	---	---	---	---	---	---	---
		89 m.p.h.	---	---	---	---	---	---	---	---	---	---	---	---
Bound		No. of vehicles obs.	131	130	56	52	75	78	30	31	4	8	26	23
		Average speed	57.6	57.4	59.0	57.6	56.5	57.3	49.7	50.1	53.8	51.4	49.0	49.6
Bound		No. of vehicles obs.	84	91	41	42	43	49	33	32	4	4	29	28
		Average speed	55.6	57.5	55.2	57.4	56.1	57.6	48.1	51.2	50.0	52.0	47.8	51.1

TABLE 11 SPEED DATA

Station 11 Highway U. S. 31 Location 3 miles South of Rochester

No. of Lanes 2 Type of Surface AC Weather Clear Dry

This Observation
Date 20 July, 1962
Time 11:00 AM - 12:15 PM

Last Previous Observation (Speed Report No. 74)
Date June 21, 1961
Time 10:40-12:00 AM 1:00 Pm -

			PASSENGER CARS						TRUCKS					
			All		Indiana		Non-Indiana		All		Less than 5000 pounds		5000 pounds or more	
OBSERVATION			Last	Present	Last	Present	Last	Present	Last	Present	Last	Present	Last	Present
All vehicles	No. of vehicles obs.		384	231	285	170	99	61	102	43	42	8	60	35
	Average speed (m.p.h.)		56.0	58.6	56.1	57.9	55.9	60.7	50.2	51.0	50.1	55.1	50.2	50.0
	Standard deviation		8.18	7.25	9.02	7.17	6.58	7.12	6.97	6.23	7.33	7.99	6.48	5.45
	% of vehicles traveling at or less than	24 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		29 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		34 m.p.h.	0.3	0.0	1.1	0.0	0.0	0.0	3.9	0.0	4.3	0.0	3.3	0.0
		39 m.p.h.	2.1	0.0	2.5	0.0	1.0	0.0	6.9	0.0	7.1	0.0	6.7	0.0
		44 m.p.h.	9.4	1.3	11.2	1.2	4.0	1.6	18.9	20.9	21.4	12.5	16.7	22.8
		49 m.p.h.	19.3	9.5	20.7	11.2	15.0	4.9	46.1	37.2	47.6	25.0	45.0	40.0
		54 m.p.h.	46.3	28.6	45.2	31.8	52.0	19.7	80.4	69.7	76.2	37.5	83.3	77.2
		59 m.p.h.	69.0	56.3	69.1	61.2	68.0	42.7	94.0	95.4	92.8	75.0	95.0	100.0
		64 m.p.h.	89.5	80.1	88.5	84.7	92.0	67.2	98.0	97.7	97.5	87.5	98.3	---
		69 m.p.h.	95.4	94.3	94.0	95.3	98.0	93.5	99.0	100.0	100.0	100.0	98.3	---
		74 m.p.h.	97.8	97.4	97.3	97.6	100.0	96.7	100.0	---	---	---	100.0	---
		79 m.p.h.	99.5	99.5	99.3	99.4	---	100.0	---	---	---	---	---	---
		84 m.p.h.	99.5	99.5	99.3	99.4	---	---	---	---	---	---	---	---
		89 m.p.h.	99.5	100.0	99.3	100.0	---	---	---	---	---	---	---	---
Bound	No. of vehicles obs.		180	110	133	82	47	28	48	19	23	2	25	17
	Average speed		56.4	58.3	57.0	57.2	55.2	63.4	50.4	51.2	50.5	62.0	50.9	49.9
Bound	No. of vehicles obs.		204	121	152	88	52	33	54	24	19	6	35	18
	Average speed		55.6	58.5	55.3	58.6	56.7	58.4	50.0	50.8	49.6	52.3	49.7	[illegible]

TABLE 12 SPEED DATA

Station 12 Highway S. R. 25 Location 0.7 Miles S. of Americus

No. of Lanes 2 Type of Surface AC Weather Cloudy Dry

This Observation
Date July 25, 1962
Time 11:00 AM - 12:30 PM

Last Previous Observation (Speed Report No. 74)
Date June 30, 1961
Time 1:40 - 3:00 PM

OBSERVATION			PASSENGER CARS						TRUCKS					
			All		Indiana		Non-Indiana		All		Less than 5000 pounds		5000 pounds or more	
			Last	Present	Last	Present	Last	Present	Last	Present	Last	Present	Last	Present
All vehicles	No. of vehicles obs.		235	229	200	189	35	40	49	56	14	12	35	44
	Average speed (m.p.h.		54.8	55.1	54.7	54.9	55.4	55.9	50.0	48.6	53.9	53.7	48.5	47.2
	Standard deviation		6.60	6.94	---	7.03	---	6.45	---	7.32	6.08	7.13	5.45	6.82
	% of vehicles traveling at or less than	24 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		29 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		34 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	2.3
		39 m.p.h.	0.0	0.4	0.0	0.5	0.0	0.0	0.0	14.3	0.0	8.3	0.0	15.9
		44 m.p.h.	0.0	6.1	0.0	6.9	0.0	2.5	20.4	26.8	0.0	8.3	28.5	31.8
		49 m.p.h.	23.0	20.5	24.5	21.6	14.3	15.0	42.8	53.5	28.6	25.0	48.6	61.3
		54 m.p.h.	52.7	48.0	50.3	48.6	51.4	45.0	85.6	76.8	64.3	41.7	94.2	86.4
		59 m.p.h.	79.2	75.1	79.5	75.6	77.1	72.5	95.8	94.5	85.6	83.3	100.0	97.2
		64 m.p.h.	94.4	90.4	92.0	90.8	97.1	87.5	97.9	100.0	92.8	100.0	---	100.0
		69 m.p.h.	98.2	93.7	98.0	98.3	100.0	100.0	100.0	---	100.0	---	---	---
		74 m.p.h.	99.5	99.6	99.5	99.4	---	---	---	---	---	---	---	---
		79 m.p.h.	---	100.0	---	100.0	---	---	---	---	---	---	---	---
		84 m.p.h.	---	---	---	---	---	---	---	---	---	---	---	---
		89 m.p.h.	---	---	---	---	---	---	---	---	---	---	---	---
Bound	No. of vehicles obs.		111	100	92	87	19	13	22	27	5	3	17	24
	Average speed		55.6	55.0	55.5	54.2	56.2	60.1	50.0	47.7	54.2	4[illegible].7	48.7	47.6
Bound	No. of vehicles obs.		124	129	108	102	16	27	27	29	9	9	1[illegible]	[illegible]0
	Average speed		54.1	55.1	54.0	55.4	54.5	55.9	50.1	4[illegible].4	5[illegible].7	[illegible].3	4[illegible].3	46.8

TABLE 13 SPEED DATA

Station 1,2,3,4 Highway Interstate Location See individual stations

No. of Lanes 4 Type of Surface _____ Weather _____

This Observation — Date _____ Time _____

Last Previous Observation (Speed Report No. 74) — Date _____ Time _____

			PASSENGER CARS						TRUCKS					
			All		Indiana		Non-Indiana		All		Less than 5000 pounds		5000 pounds or more	
OBSERVATION			Last	Present	Last	Present	Last	Present	Last	Present	Last	Present	Last	Present
All vehicles	No. of vehicles obs.		873	908	473	561	182	347	248	283	49	45	199	238
	Average speed (m.p.h.)		58.2	58.8	56.7	58.7	56.9	59.1	52.4	53.2	55.9	55.8	51.5	52.7
	Standard deviation		7.13	6.83	7.31	7.06	6.41	6.44	6.00	6.46	7.36	8.15	5.27	5.98
	% of vehicles traveling at or less than	24 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		29 m.p.h.	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.4
		34 m.p.h.	0.3	0.1	0.4	0.2	0.0	0.0	0.0	0.7	0.0	2.2	0.0	0.4
		39 m.p.h.	1.1	0.3	1.6	0.4	0.6	0.3	2.0	1.1	2.0	6.7	2.0	0.8
		44 m.p.h.	4.4	2.1	6.3	2.5	3.2	1.4	9.6	7.1	6.1	22.2	10.6	7.1
		49 m.p.h.	11.4	7.8	15.4	8.8	11.5	6.3	33.0	26.3	22.4	40.0	35.6	27.7
		54 m.p.h.	31.5	24.2	38.0	26.3	38.4	20.2	69.4	59.7	47.0	68.9	74.8	63.4
		59 m.p.h.	59.8	54.4	69.1	55.0	67.6	53.6	91.1	85.8	65.3	84.5	97.4	89.0
		64 m.p.h.	85.0	80.4	90.0	80.2	93.4	81.0	97.6	95.0	91.8	97.8	99.0	97.0
		69 m.p.h.	95.2	94.5	96.0	94.5	97.3	95.0	99.6	99.6	98.0	100.0	100.0	100.0
		74 m.p.h.	98.8	99.2	99.2	99.2	98.9	99.4	100.0	100.0	100.0	---	---	---
		79 m.p.h.	100.0	99.8	100.0	99.6	100.0	99.7	---	---	---	---	---	---
		84 m.p.h.	---	100.0	---	100.0	---	100.0	---	---	---	---	---	---
		89 m.p.h.	---	---	---	---	---	---	---	---	---	---	---	---
Bound	No. of vehicles obs.		---	---	---	---	---	---	---	---	---	---	---	---
	Average speed		---	---	---	---	---	---	---	---	---	---	---	---
Bound	No. of vehicles obs.		---	---	---	---	---	---	---	---	---	---	---	---
	Average speed		---	---	---	---	---	---	---	---	---	---	---	---

TABLE 14 SPEED DATA

Station 5, 6, 7, 8 Highway 4 Lanes Location See individual stations

No. of Lanes ____ Type of Surface ____ Weather ____

This Observation
Date ____
Time ____

Last Previous Observation (Speed Report No. 74)
Date ____
Time ____

		PASSENGER CARS						TRUCKS					
		All		Indiana		Non-Indiana		All		Less than 5000 pounds		5000 pounds or more	
OBSERVATION		Last	Present	Last	Present	Last	Present	Last	Present	Last	Present	Last	Present
All vehicles	No. of vehicles obs.	999	905	666	575	333	330	260	208	60	37	200	171
	Average speed (m.p.h.)	57.6	59.2	57.6	59.2	57.6	59.3	51.0	51.9	53.6	54.7	50.3	51.3
	Standard deviation	7.13	6.69	7.54	6.70	6.15	6.68	6.39	6.03	7.61	7.13	5.74	5.60
	% of vehicles traveling at or less than: 24 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	29 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	34 m.p.h.	0.1	0.1	0.2	0.2	0.0	0.0	1.2	0.0	1.7	0.0	1.0	0.0
	39 m.p.h.	0.9	0.2	1.2	0.3	0.3	0.0	3.8	1.0	3.3	0.0	4.0	1.2
	44 m.p.h.	3.6	1.9	4.5	2.1	1.8	1.5	17.3	9.6	15.0	8.1	13.0	9.9
	49 m.p.h.	11.8	6.6	13.5	6.6	8.4	6.7	41.2	37.0	28.3	24.3	45.0	39.8
	54 m.p.h.	35.6	22.0	36.8	21.2	33.3	23.3	72.7	66.4	53.3	40.6	78.5	70.2
	59 m.p.h.	63.3	51.0	62.3	51.6	66.6	50.0	94.6	91.4	83.3	75.6	98.0	94.8
	64 m.p.h.	87.4	79.6	86.0	80.2	90.0	78.5	98.8	97.0	95.0	89.3	100.0	98.8
	69 m.p.h.	95.8	94.8	95.3	94.8	96.6	94.5	99.6	100.0	98.3	100.0	—	100.0
	74 m.p.h.	99.2	99.1	99.0	99.0	96.6	99.1	100.0	—	100.0	—	—	—
	79 m.p.h.	99.8	99.9	99.6	99.8	100.0	100.0	—	—	—	—	—	—
	84 m.p.h.	99.3	100.0	99.6	100.0	—	—	—	—	—	—	—	—
	89 m.p.h.	99.8	—	99.6	—	—	—	—	—	—	—	—	—
Bound	No. of vehicles obs.	—	—	—	—	—	—	—	—	—	—	—	—
	Average speed	—	—	—	—	—	—	—	—	—	—	—	—
Bound	No. of vehicles obs.	—	—	—	—	—	—	—	—	—	—	—	—
	Average speed	—	—	—	—	—	—	—	—	—	—	—	—

TABLE 15 SPEED DATA

Station 9,10,11,12 Highway 2 Lanes Location see individual stations

No. of Lanes 2 Type of Surface _____ Weather _____

This Observation
Date _____
Time _____

Last Previous Observation (Speed Report No. 74)
Date _____
Time _____

		PASSENGER CARS						TRUCKS					
		All		Indiana		Non-Indiana		All		Less than 5000 pounds		5000 pounds or more	
OBSERVATION		Last	Present	Last	Present	Last	Present	Last	Present	Last	Present	Last	Present
All vehicles	No. of vehicles obs.	815	905	480	577	335	328	229	237	61	49	168	188
	Average speed (m.p.h.)	55.9	57.0	56.2	56.7	55.6	57.5	49.3	50.1	50.4	53.1	48.9	49.3
	Standard deviation	7.33	6.97	8.17	7.10	5.88	6.72	6.05	6.90	7.10	8.68	5.52	6.14
	% of vehicles traveling at or less than 24 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	29 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	2.0	0.0	0.5
	34 m.p.h.	0.4	0.0	0.6	0.0	0.0	0.0	1.7	2.1	3.2	2.0	1.2	2.1
	39 m.p.h.	1.4	0.3	1.8	0.2	0.6	0.6	5.6	5.9	8.2	4.1	4.8	6.4
	44 m.p.h.	6.6	3.0	3.5	3.5	3.8	2.1	21.0	13.1	21.3	16.3	20.8	18.6
	49 m.p.h.	16.9	12.9	19.0	14.9	14.0	9.5	53.2	44.3	41.0	32.6	57.7	47.3
	54 m.p.h.	46.4	36.2	44.8	37.6	48.6	33.8	86.0	75.0	73.8	51.0	90.5	81.4
	59 m.p.h.	72.6	66.1	69.8	67.3	76.7	64.0	97.4	94.0	95.0	79.5	98.2	97.9
	64 m.p.h.	91.8	86.4	89.4	87.3	95.2	84.8	99.1	98.3	98.4	91.8	99.4	100.0
	69 m.p.h.	97.2	96.4	95.4	96.5	99.7	96.4	99.6	99.5	100.0	98.0	99.4	—
	74 m.p.h.	98.8	99.0	98.1	98.9	100.0	99.5	100.0	100.0	—	100.0	100.0	—
	79 m.p.h.	99.8	99.9	99.6	99.8	—	100.0	—	—	—	—	—	—
	84 m.p.h.	99.8	99.9	99.6	99.8	—	—	—	—	—	—	—	—
	89 m.p.h.	99.8	100.0	99.6	100.0	—	—	—	—	—	—	—	—
Bound	No. of vehicles obs.	—	—	—	—	—	—	—	—	—	—	—	—
	Average speed	—	—	—	—	—	—	—	—	—	—	—	—
Bound	No. of vehicles obs.	—	—	—	—	—	—	—	—	—	—	—	—
	Average speed	—	—	—	—	—	—	—	—	—	—	—	—

TABLE 16 SPEED DATA

Station 1 Thru 12 Highway All Systems Location See individual stations

No. of Lanes ____ Type of Surface ____ Weather ____

This Observation
Date ____
Time ____

Last Previous Observation (Speed Report No. 74)
Date ____
Time ____

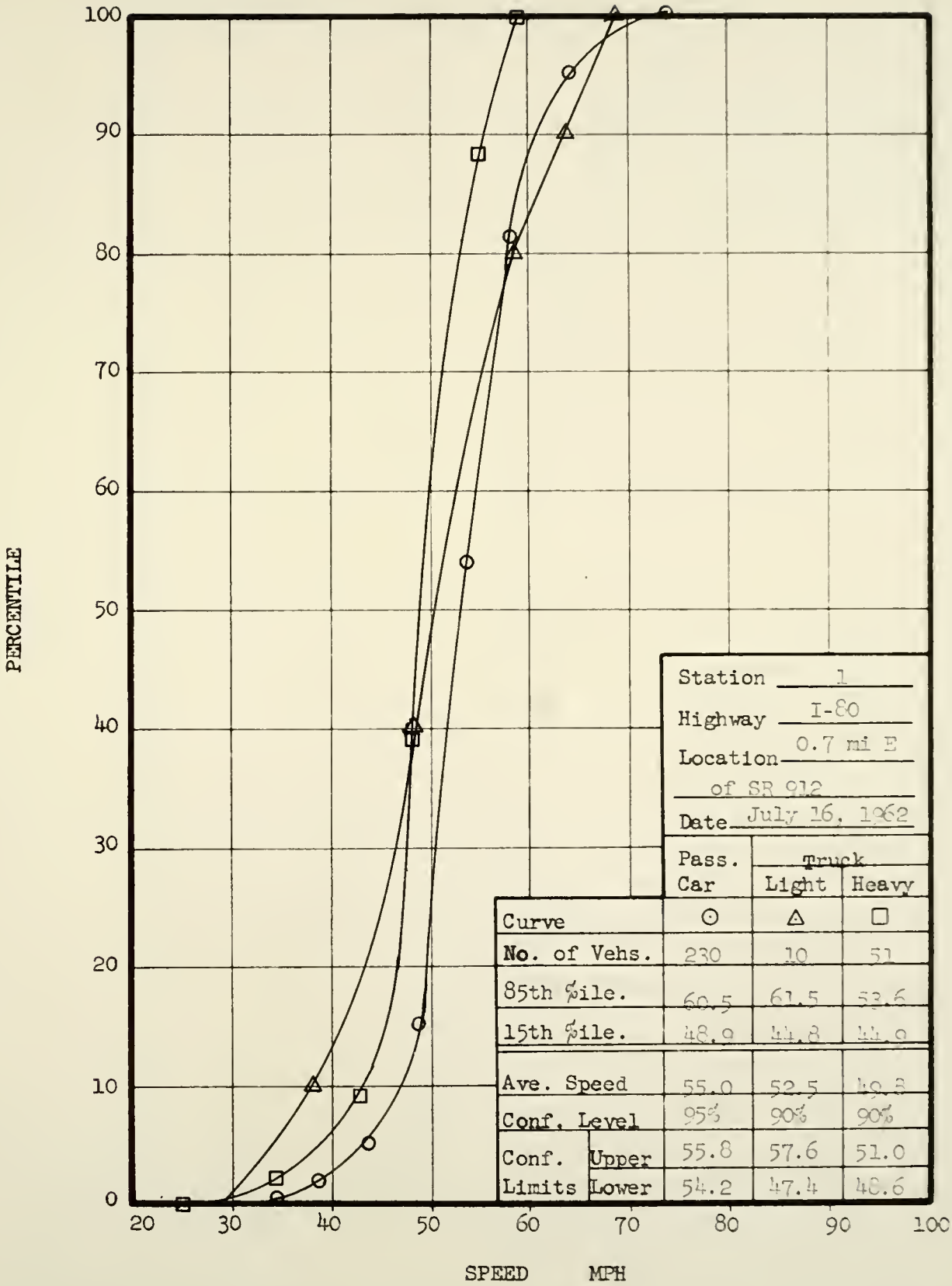
			PASSENGER CARS						TRUCKS					
			All		Indiana		Non-Indiana		All		Less than 5000 pounds		5000 pounds or more	
OBSERVATION			Last	Present	Last	Present	Last	Present	Last	Present	Last	Present	Last	Present
All vehicles	No. of vehicles obs.		2687	2718	1619	1713	850	1005	737	728	170	131	567	597
	Average speed (m.p.h.)		57.3	58.4	56.9	58.2	56.7	58.7	51.0	51.8	53.1	54.5	50.3	51.2
	Standard deviation		7.25	6.90	7.69	7.02	6.17	6.66	6.30	6.61	7.66	8.10	5.67	6.09
	% of vehicles traveling at or less than	24 m.p.h.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		29 m.p.h.	0.04	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.8	0.0	0.3
		34 m.p.h.	0.26	0.1	0.4	0.1	0.0	0.0	0.9	1.0	1.8	1.5	0.7	0.8
		39 m.p.h.	1.1	0.3	1.5	0.3	0.5	0.3	3.8	2.6	4.7	2.3	3.5	2.7
		44 m.p.h.	4.8	2.3	6.2	2.7	2.9	1.7	15.9	11.4	14.7	10.7	16.2	11.5
		49 m.p.h.	13.2	9.1	15.7	10.1	12.9	7.5	42.2	35.4	31.2	26.7	46.5	37.4
		54 m.p.h.	37.6	27.5	39.5	28.5	40.5	25.7	75.7	66.6	58.8	46.6	80.8	71.0
		59 m.p.h.	65.1	57.2	66.5	58.0	70.8	55.9	94.3	90.1	82.4	74.8	97.9	93.5
		64 m.p.h.	87.9	82.1	88.2	82.5	92.8	81.4	98.5	96.6	95.3	88.5	99.5	98.5
		69 m.p.h.	96.0	95.2	95.6	95.1	98.1	95.4	99.6	99.7	98.8	98.5	99.8	100.0
		74 m.p.h.	99.0	99.1	98.3	98.9	99.6	99.4	100.0	100.0	100.0	100.0	100.0	---
		79 m.p.h.	99.9	99.8	99.8	99.7	100.0	99.9	---	---	---	---	---	---
		84 m.p.h.	99.9	99.9	99.8	99.9	---	100.0	---	---	---	---	---	---
		89 m.p.h.	99.9	100.0	99.8	100.0	---	---	---	---	---	---	---	---
Bound	No. of vehicles obs.		---	---	---	---	---	---	---	---	---	---	---	---
	Average speed		---	---	---	---	---	---	---	---	---	---	---	---
Bound	No. of vehicles obs.		---	---	---	---	---	---	---	---	---	---	---	---
	Average speed		---	---	---	---	---	---	---	---	---	---	---	---

TABLE 17

SUMMARY OF SPOT SPEED OBSERVATION
ON INDIANA HIGHWAYS
(Free-Moving Vehicles on Level, Tangent Sections)

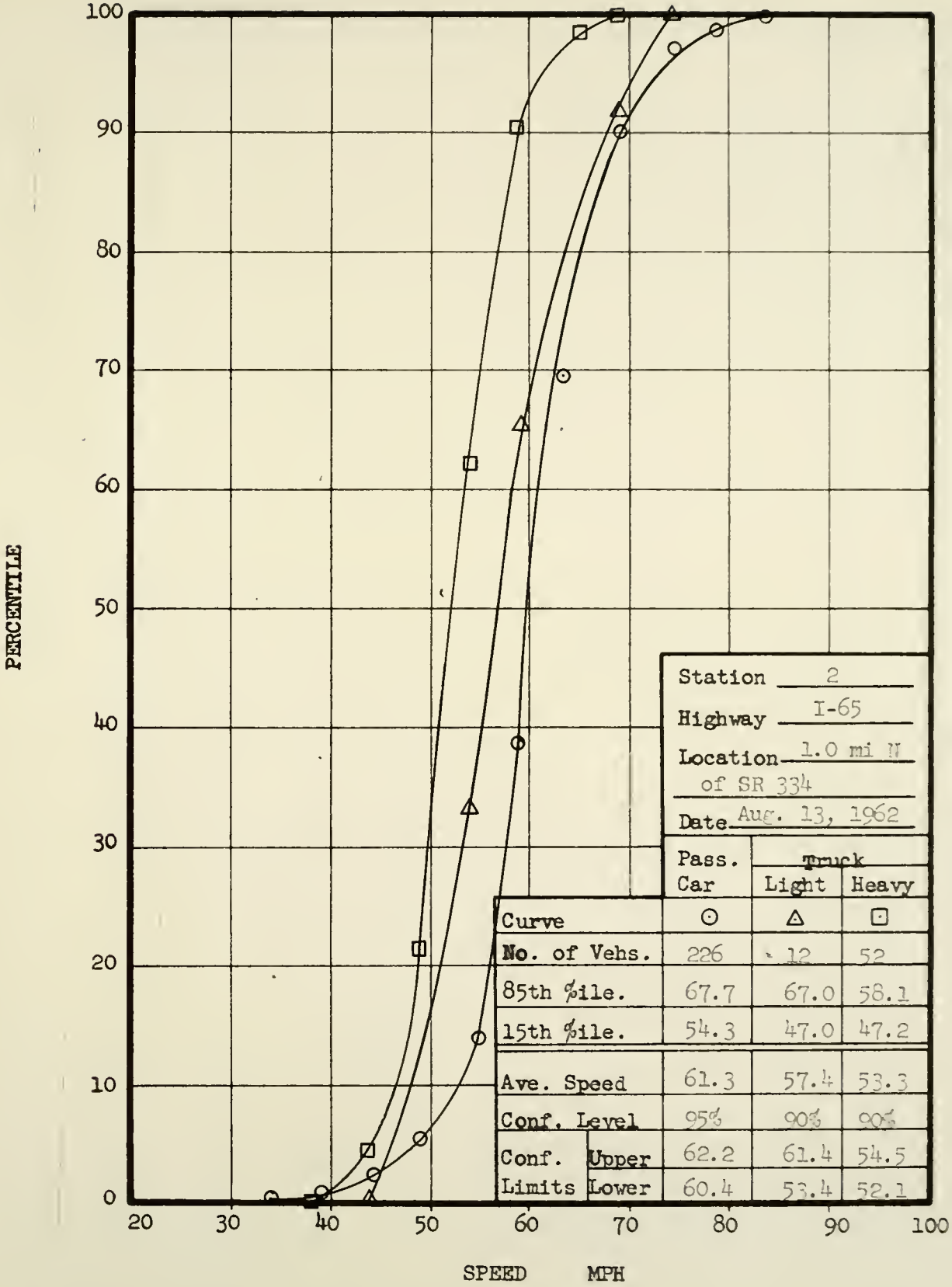
	Passenger Cars				Trucks		
	Ind. Mean	Non-Ind. Mean	All Mean	All 85 per	Light Mean	Heavy Mean	All Mean
Two-Lane Highways							
May '57	55.6	59.1	56.9	64.0	50.2	44.8	46.1
Aug. '57	55.5	56.7	55.9	62.1	51.7	45.8	47.3
Aug. '58	54.3	56.3	55.0	61.7	53.0	46.3	47.8
Mar. '59	55.5	57.7	56.1	61.9	50.4	45.4	46.3
Aug. '59	55.6	55.3	55.9	63.2	49.7	46.7	48.0
Mar. '60	53.3	54.8	53.7	61.2	48.5	45.9	46.6
Sept. '60	55.7	55.6	55.6	62.0	53.0	48.1	49.1
Mar. '61	56.7	56.4	56.6	63.9	53.7	47.5	49.3
Aug. '61	56.2	55.7	55.9	62.2	50.4	48.9	49.3
Aug. '62	56.7	57.5	57.0	63.7	53.1	49.3	50.1
Four-Lane Highways							
May '57	59.9	63.6	61.0	69.0	52.2	46.0	47.9
Aug. '57	57.5	59.9	58.5	64.8	52.0	46.6	47.6
Aug. '58	58.0	59.6	58.7	65.0	54.3	49.0	50.0
Mar. '59	58.2	61.7	59.0	64.9	53.6	47.0	48.4
Aug. '59	58.4	60.1	59.1	64.5	50.0	53.1	49.5
Mar. '60	58.1	59.2	58.4	65.0	52.4	47.3	48.4
Sept. '60	59.5	60.2	59.7	65.8	54.8	51.3	52.0
Mar. '61	58.9	61.0	59.6	66.7	54.0	47.3	48.9
Aug. '61	57.6	57.6	57.6	63.5	53.6	50.3	51.0
Aug. '62	59.2	59.3	59.2	65.8	54.7	51.3	51.9
Interstate Highways							
Aug. '61	56.7*	56.9*	58.2	64.0	55.9	51.5	52.4
Aug. '62	58.7	59.1	58.8	65.6	55.8	52.7	53.2
All Highways							
May '57	57.2	60.3	58.3	66.0	50.9	45.2	46.6
Aug. '57	56.2	58.3	56.9	63.2	51.8	46.1	47.4
Aug. '58	55.7	57.9	56.5	63.1	53.4	47.5	48.7
Mar. '59	56.6	59.0	57.2	63.1	51.5	45.9	47.0
Aug. '59	56.5	58.4	57.4	63.5	50.6	47.8	48.6
Mar. '60	55.6	57.1	56.0	63.0	50.2	46.6	47.5
Sept. '60	57.3	57.6	57.4	63.7	53.7	49.4	50.2
Mar. '61	57.7	58.3	57.9	65.1	53.8	47.4	49.1
Aug. '61	56.9	56.7	57.3	63.4	53.1	50.3	51.0
Aug. '62	58.2	58.7	58.4	65.1	54.5	51.2	51.8

*Includes data for only three of the four stations on Interstate Highways



		Pass. Car	Truck Light	Truck Heavy
Curve		⊙	△	□
No. of Vehs.		230	10	51
85th %ile.		60.5	61.5	53.6
15th %ile.		48.9	44.8	44.9
Ave. Speed		55.0	52.5	49.8
Conf. Level		95%	90%	90%
Conf. Limits	Upper	55.8	57.6	51.0
	Lower	54.2	47.4	48.6

Fig. 1



		Pass. Car	Truck Light	Truck Heavy
Curve		⊙	△	⊡
No. of Vehs.		226	12	52
85th %ile.		67.7	67.0	58.1
15th %ile.		54.3	47.0	47.2
Ave. Speed		61.3	57.4	53.3
Conf. Level		95%	90%	90%
Conf. Limits	Upper	62.2	61.4	54.5
	Lower	60.4	53.4	52.1

Fig. 2

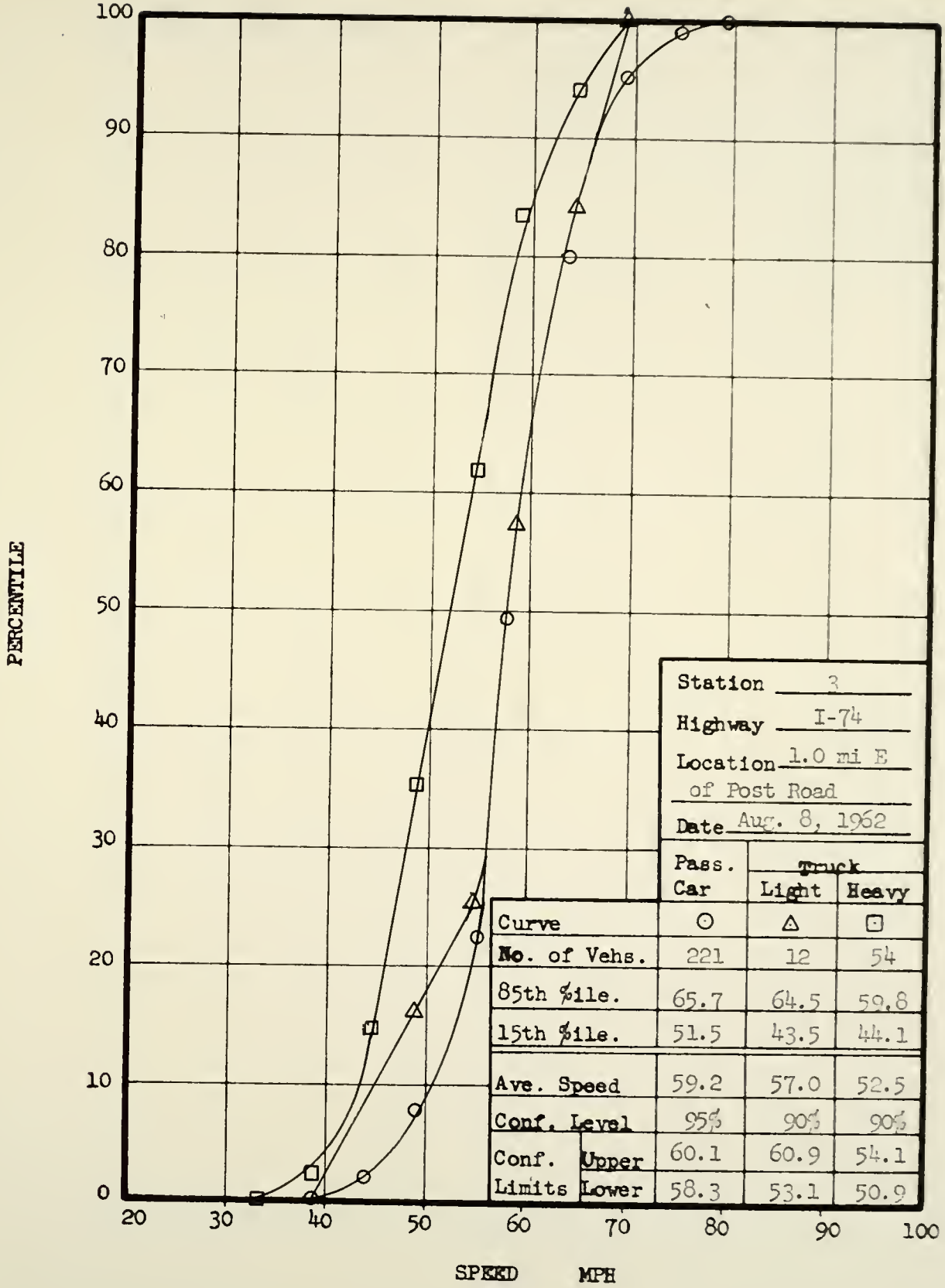
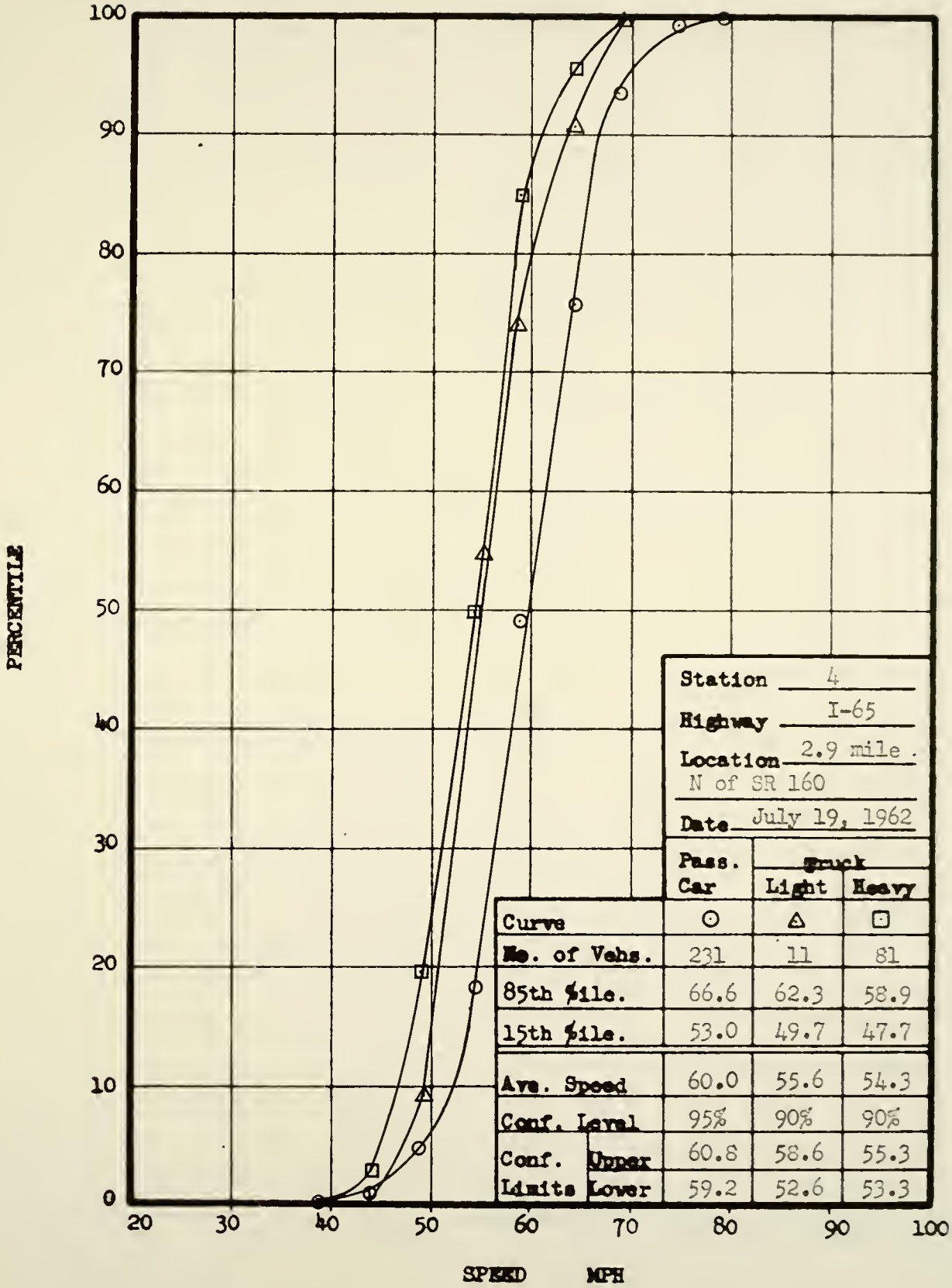

PERCENTILE
SPEED MPH
100
90
80
70
60
50
40
30
20
10
0
20
30
40
50
60
70
80
90
100
Station 3
Highway I-74
Location 1.0 mi E of Post Road
Date Aug. 8, 1962
Pass. Car
Truck
Light
Heavy
Curve
No. of Vehs. 221 12 54
85th %ile. 65.7 64.5 59.8
15th %ile. 51.5 43.5 44.1
Ave. Speed 59.2 57.0 52.5
Conf. Level 95% 90% 90%
Conf. Limits Upper 60.1 60.9 54.1
Lower 58.3 53.1 50.9

Fig. 3



		Pass. Car	Truck Light	Truck Heavy
Curve		⊙	△	⊡
No. of Vehs.		231	11	81
85th %ile.		66.6	62.3	58.9
15th %ile.		53.0	49.7	47.7
Ave. Speed		60.0	55.6	54.3
Conf. Level		95%	90%	90%
Conf. Limits	Upper	60.8	58.6	55.3
	Lower	59.2	52.6	53.3

Fig. 4

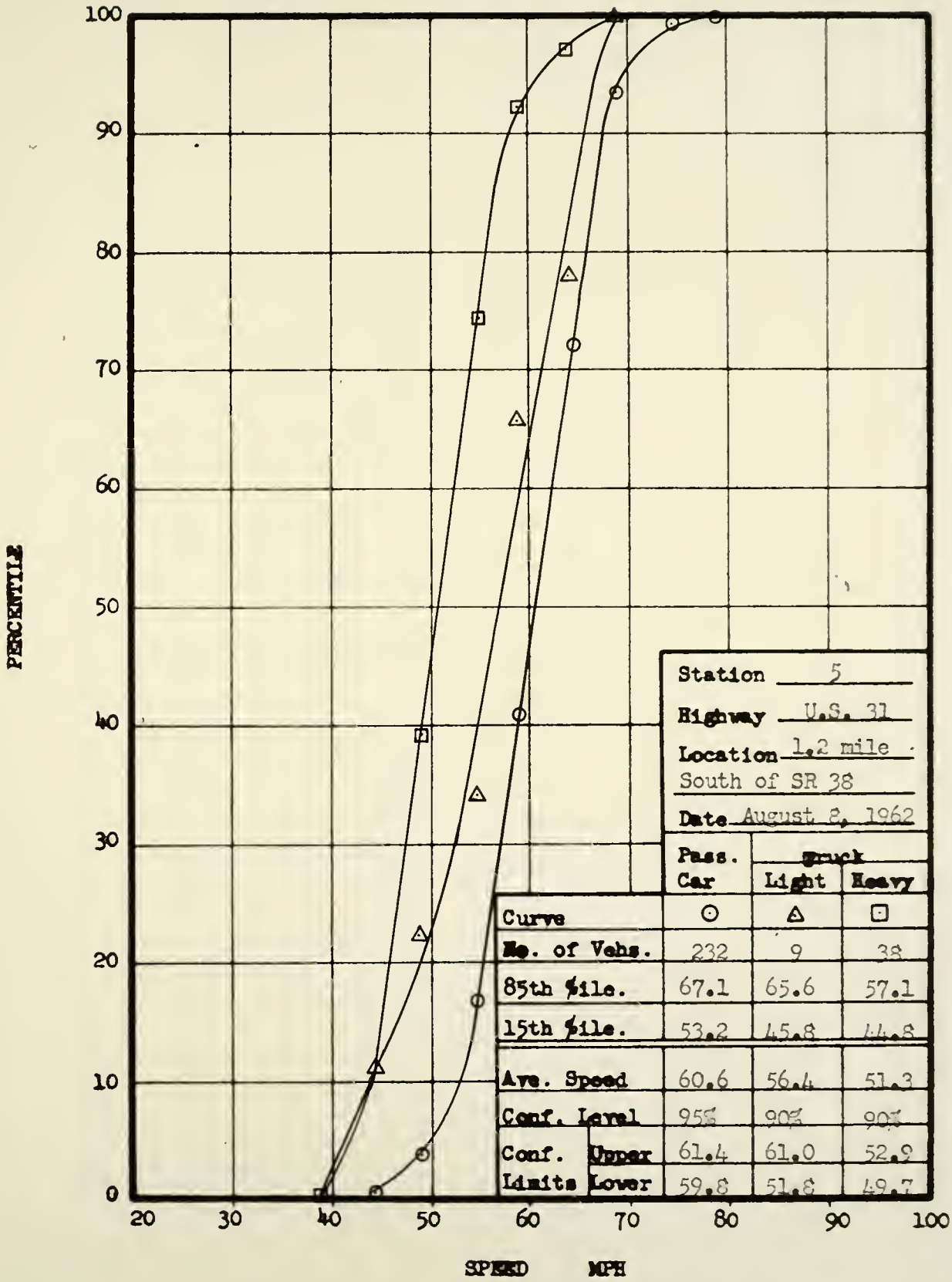
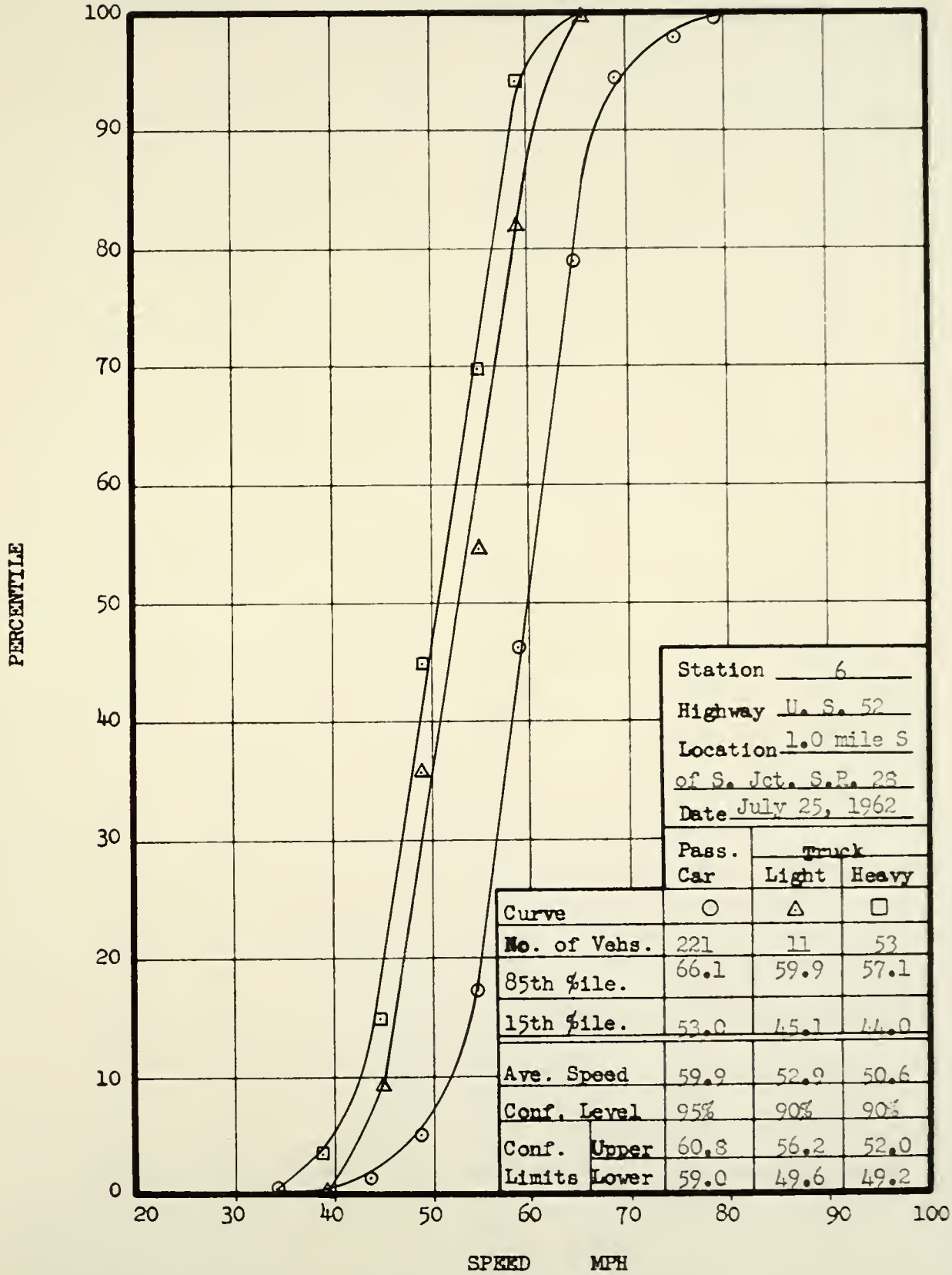
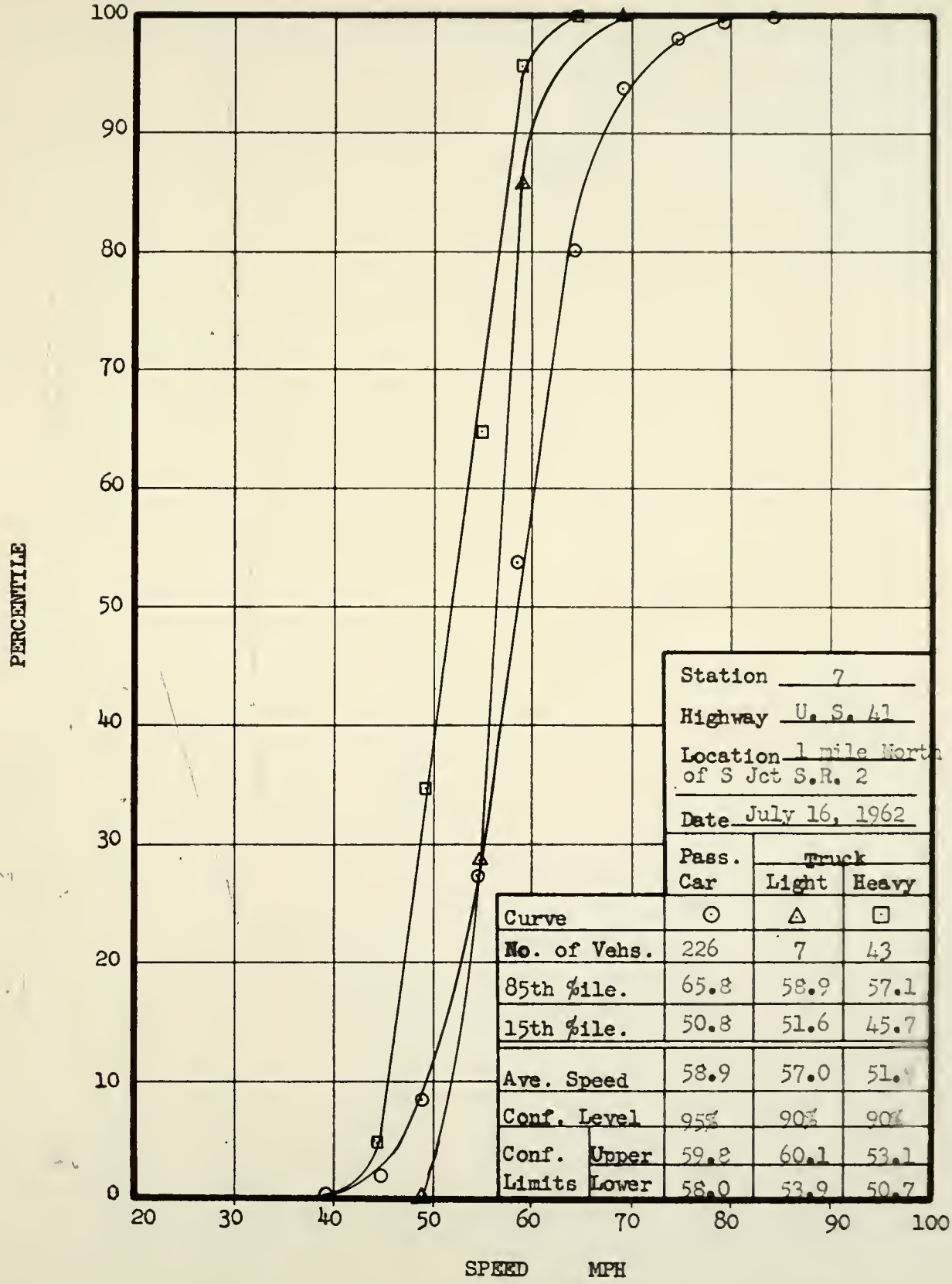

PERCENTILE
SPEED MPH
Station 5
Highway U.S. 31
Location 1.2 mile South of SR 38
Date August 8, 1962
Pass. Car
Truck Light
Truck Heavy
Curve
No. of Vehs. 232 9 38
85th %ile. 67.1 65.6 57.1
15th %ile. 53.2 45.8 44.8
Ave. Speed 60.6 56.4 51.3
Conf. Level 95% 90% 90%
Conf. Limits Upper 61.4 61.0 52.9
Conf. Limits Lower 59.8 51.8 49.7

FIGURE 5



		Pass. Car	Truck Light	Truck Heavy
Curve		○	△	□
No. of Vehs.		221	11	53
85th %ile.		66.1	59.9	57.1
15th %ile.		53.0	45.1	44.0
Ave. Speed		59.9	52.9	50.6
Conf. Level		95%	90%	90%
Conf. Limits	Upper	60.8	56.2	52.0
	Lower	59.0	49.6	49.2

FIGURE 6



	Pass. Car	Truck Light	Truck Heavy
Curve	⊙	△	⊡
No. of Vehs.	226	7	43
85th %ile.	65.8	58.9	57.1
15th %ile.	50.8	51.6	45.7
Ave. Speed	58.9	57.0	51.[illegible]
Conf. Level	95%	90%	90%
Conf. Limits Upper	59.8	60.1	53.1
Conf. Limits Lower	58.0	53.9	50.7

FIGURE 7

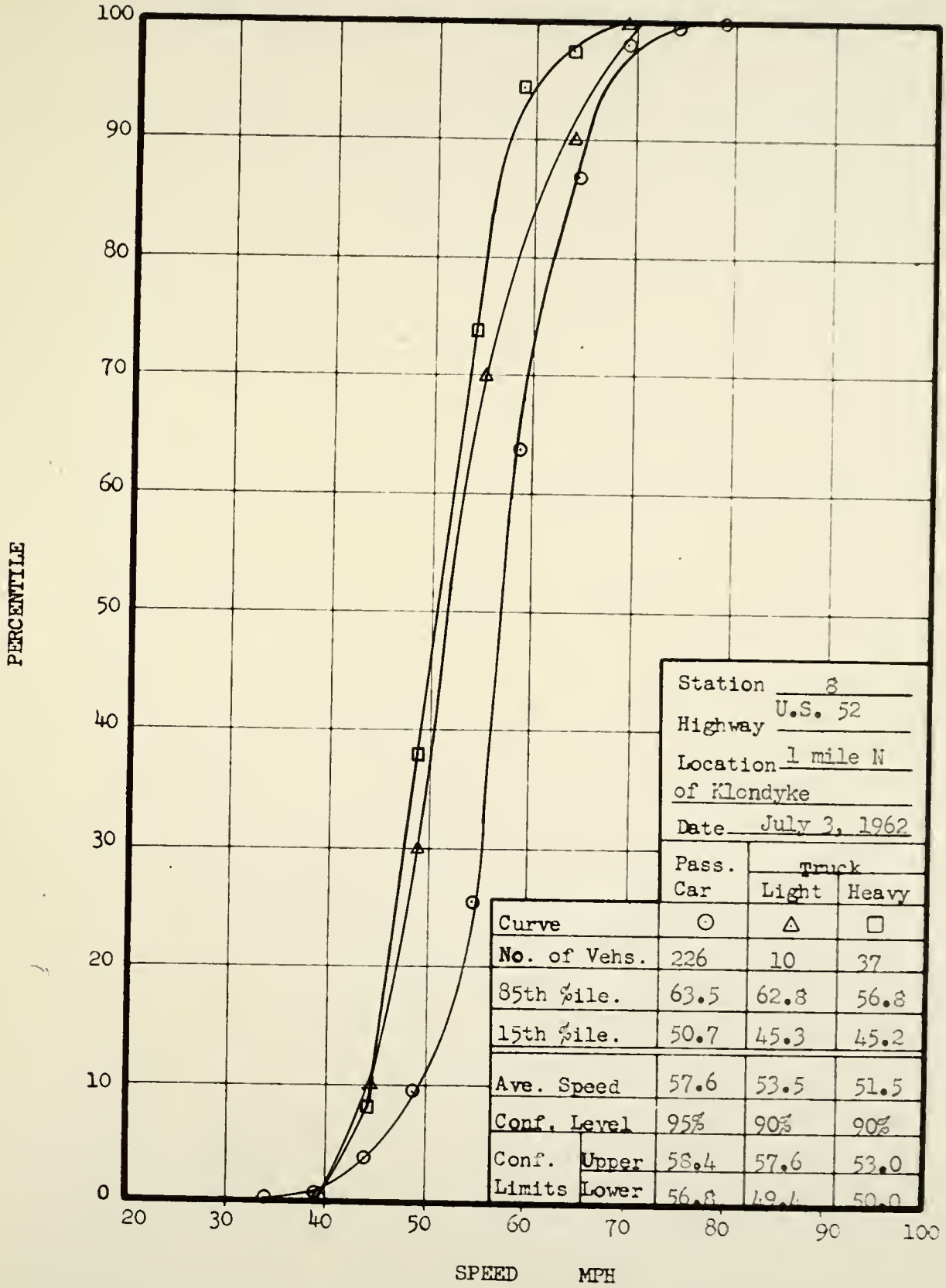

PERCENTILE
100
90
80
70
60
50
40
30
20
10
0
20
30
40
50
60
70
80
90
100
SPEED MPH
Station 8
Highway U.S. 52
Location 1 mile N of Klondyke
Date July 3, 1962
Pass. Car
Truck
Light
Heavy
Curve
No. of Vehs. 226 10 37
85th %ile. 63.5 62.8 56.8
15th %ile. 50.7 45.3 45.2
Ave. Speed 57.6 53.5 51.5
Conf. Level 95% 90% 90%
Conf. Limits Upper 58.4 57.6 53.0
Lower 56.8 49.4 50.0

FIGURE 8

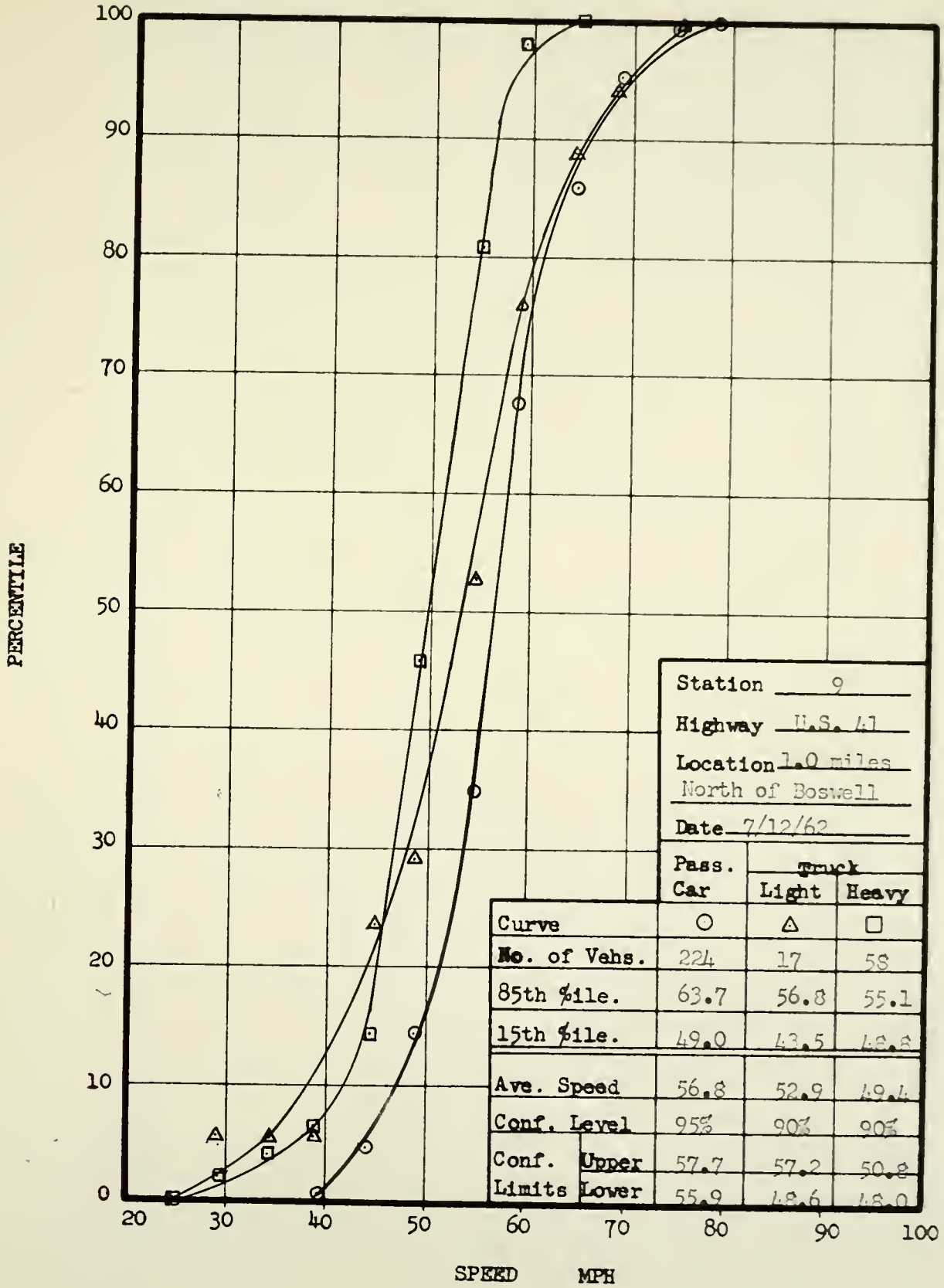
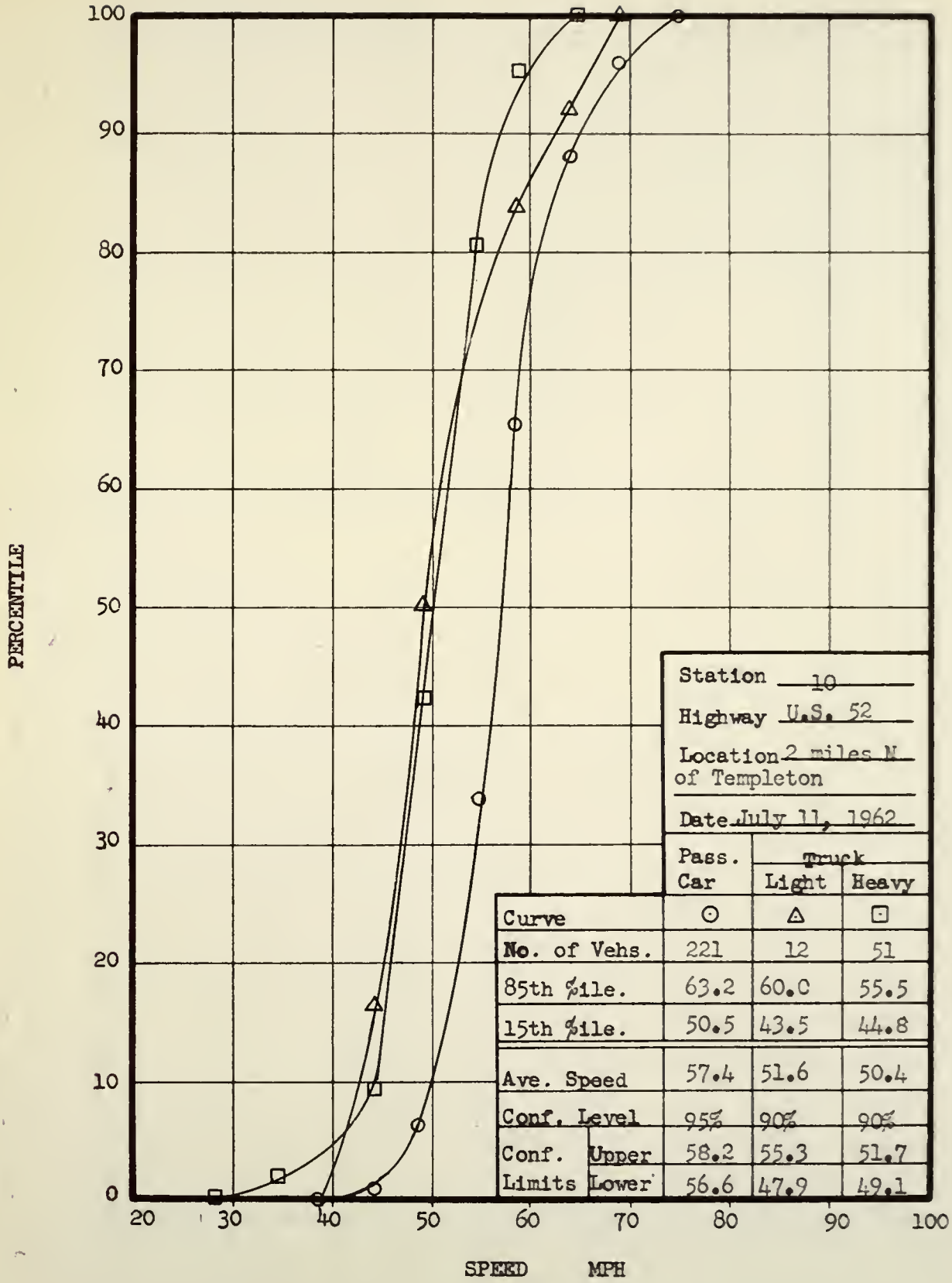

PERCENTILE
100
90
80
70
60
50
40
30
20
10
0
20
30
40
50
60
70
80
90
100
SPEED MPH
Station 9
Highway U.S. 41
Location 1.0 miles North of Boswell
Date 7/12/62
Pass. Car
Truck
Light
Heavy
Curve
No. of Vehs. 224 17 58
85th %ile. 63.7 56.8 55.1
15th %ile. 49.0 43.5 48.8
Ave. Speed 56.8 52.9 49.4
Conf. Level 95% 90% 90%
Conf. Limits Upper 57.7 57.2 50.8
Lower 55.9 48.6 48.0

FIGURE 9



Station 10

Highway U.S. 52

Location 2 miles N of Templeton

Date July 11, 1962

	Pass. Car	Truck Light	Truck Heavy
Curve	⊙	△	⊡
No. of Vehs.	221	12	51
85th %ile.	63.2	60.0	55.5
15th %ile.	50.5	43.5	44.8
Ave. Speed	57.4	51.6	50.4
Conf. Level	95%	90%	90%
Conf. Limits Upper	58.2	55.3	51.7
Conf. Limits Lower	56.6	47.9	49.1

FIGURE 10

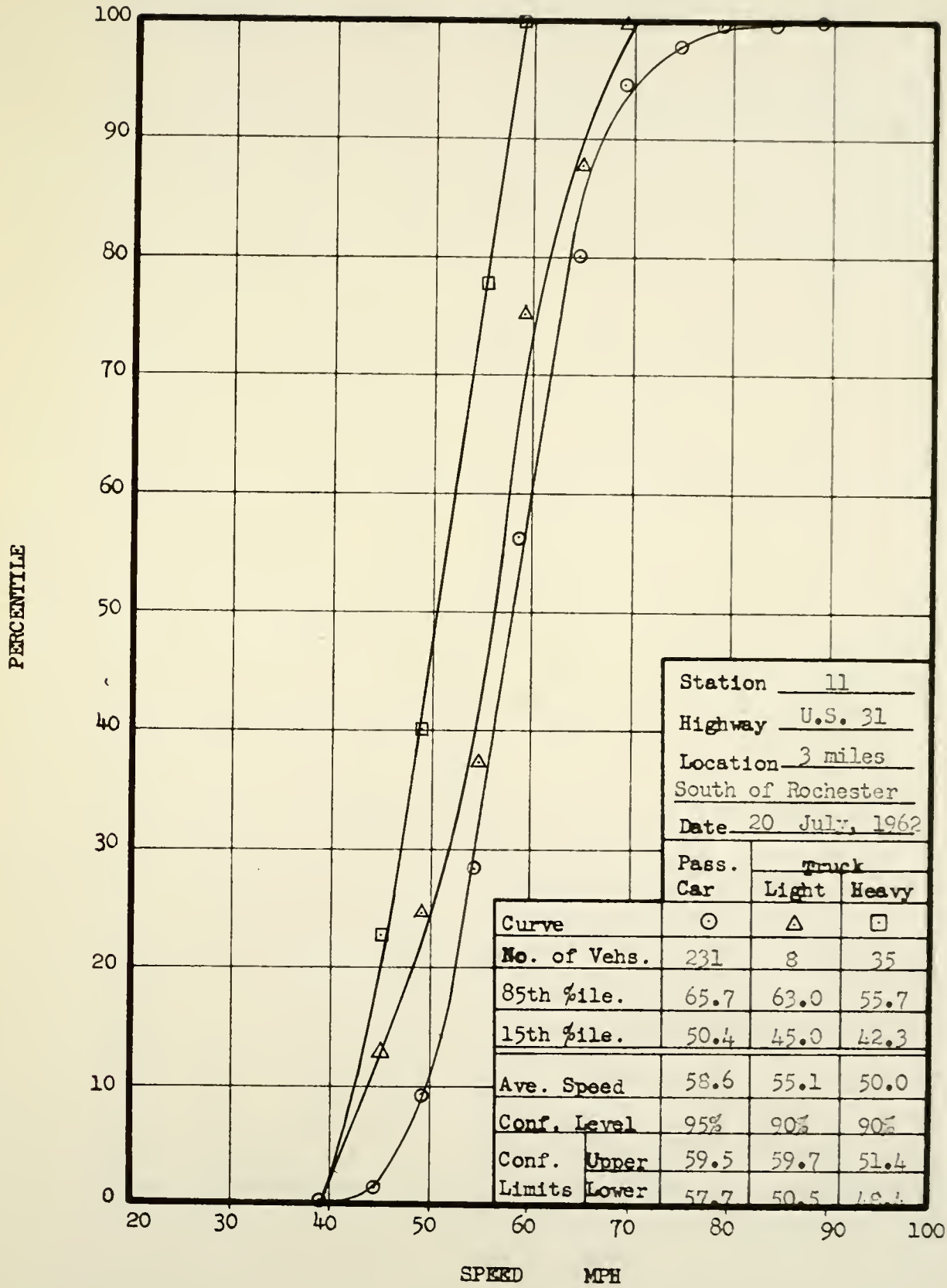

PERCENTILE
100
90
80
70
60
50
40
30
20
10
0
20
30
40
50
60
70
80
90
100
SPEED MPH
Station 11
Highway U.S. 31
Location 3 miles South of Rochester
Date 20 July, 1962
Pass. Car
Truck
Light
Heavy
Curve
No. of Vehs. 231 8 35
85th %ile. 65.7 63.0 55.7
15th %ile. 50.4 45.0 42.3
Ave. Speed 58.6 55.1 50.0
Conf. Level 95% 90% 90%
Conf. Limits Upper 59.5 59.7 51.4
Lower 57.7 50.5 48.4

FIGURE 11

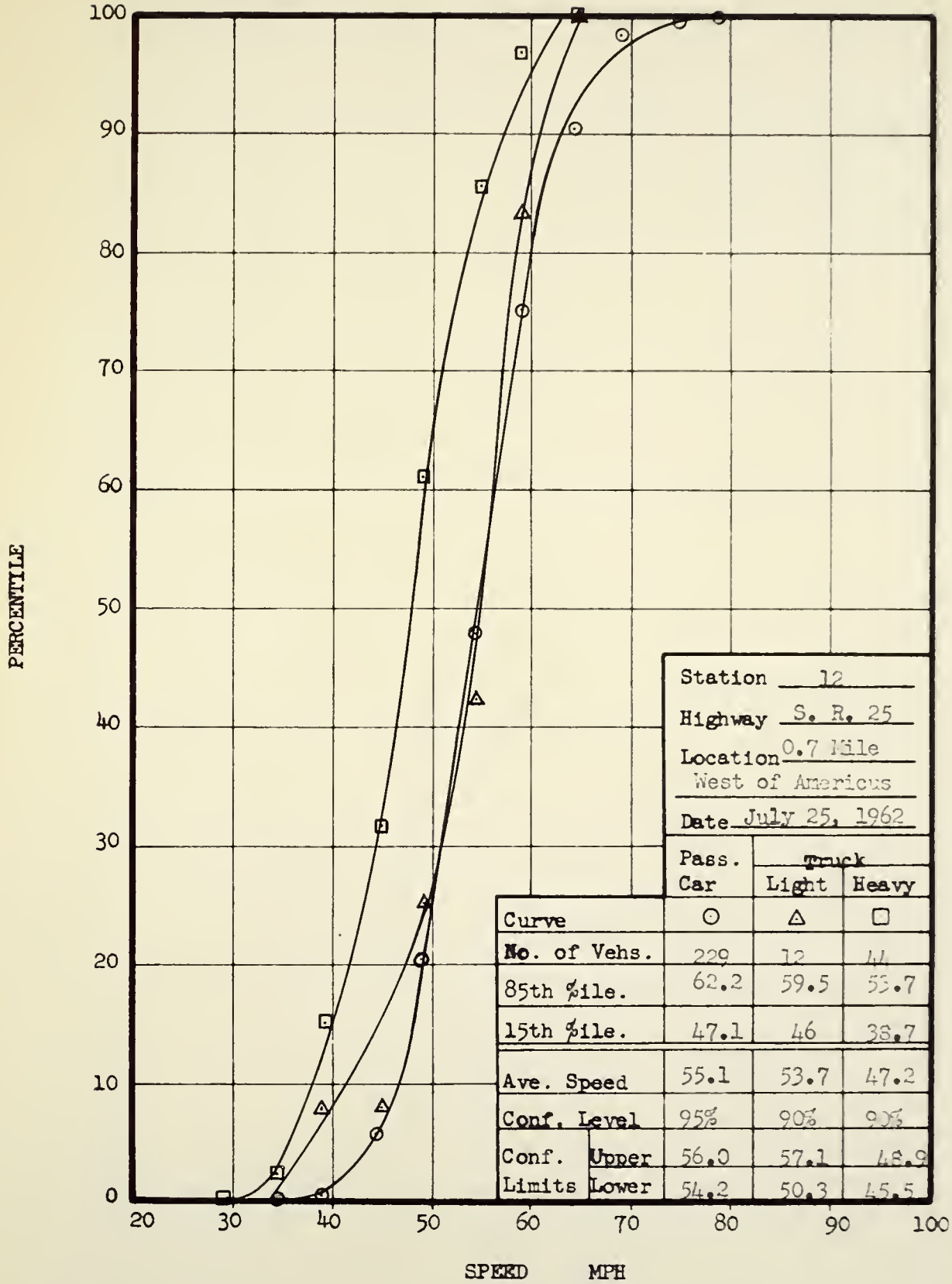

PERCENTILE
SPEED MPH
0
10
20
30
40
50
60
70
80
90
100
20
30
40
50
60
70
80
90
100
Station 12
Highway S. R. 25
Location 0.7 Mile West of Americus
Date July 25, 1962
Pass. Car
Truck
Light
Heavy
Curve
No. of Vehs. 229 12 44
85th %ile. 62.2 59.5 53.7
15th %ile. 47.1 46 38.7
Ave. Speed 55.1 53.7 47.2
Conf. Level 95% 90% 90%
Conf. Limits Upper 56.0 57.1 48.9
Lower 54.2 50.3 45.5

FIGURE 12

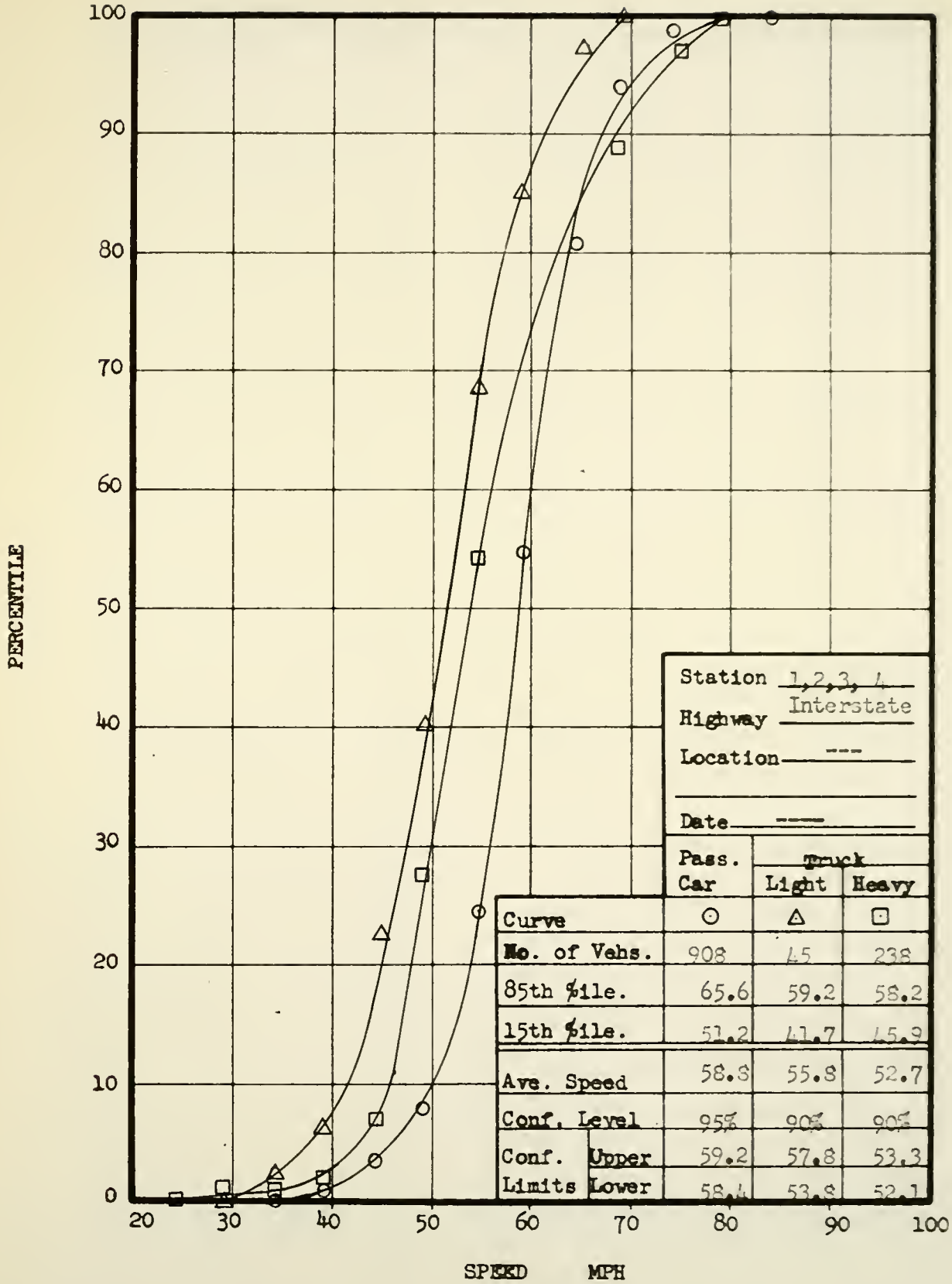

PERCENTILE
100
90
80
70
60
50
40
30
20
10
0
20
30
40
50
60
70
80
90
100
SPEED MPH
Station 1,2,3, 4
Highway Interstate
Location ---
Date ---
Pass. Car
Truck
Light
Heavy
Curve
No. of Vehs. 908 45 238
85th %ile. 65.6 59.2 58.2
15th %ile. 51.2 41.7 45.9
Ave. Speed 58.8 55.8 52.7
Conf. Level 95% 90% 90%
Conf. Limits Upper 59.2 57.8 53.3
Lower 58.4 53.8 52.1

FIGURE 13

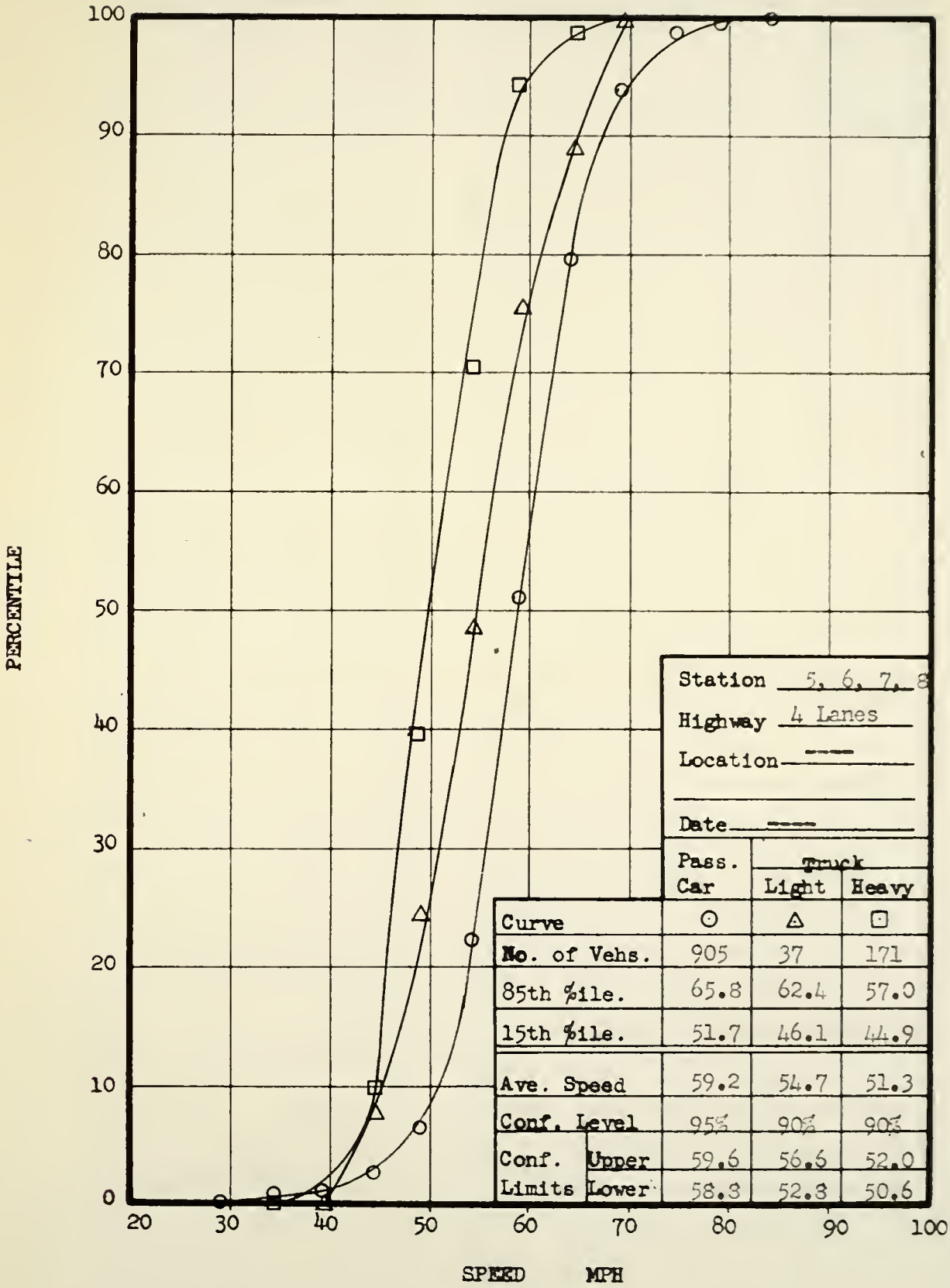

PERCENTILE
100
90
80
70
60
50
40
30
20
10
0
20
30
40
50
60
70
80
90
100
SPEED MPH
Station 5, 6, 7, 8
Highway 4 Lanes
Location ----
Date ----
Pass. Car
Truck
Light
Heavy
Curve
No. of Vehs. 905 37 171
85th %ile. 65.8 62.4 57.0
15th %ile. 51.7 46.1 44.9
Ave. Speed 59.2 54.7 51.3
Conf. Level 95% 90% 90%
Conf. Limits Upper 59.6 56.6 52.0
Lower 58.3 52.3 50.6

FIGURE 14

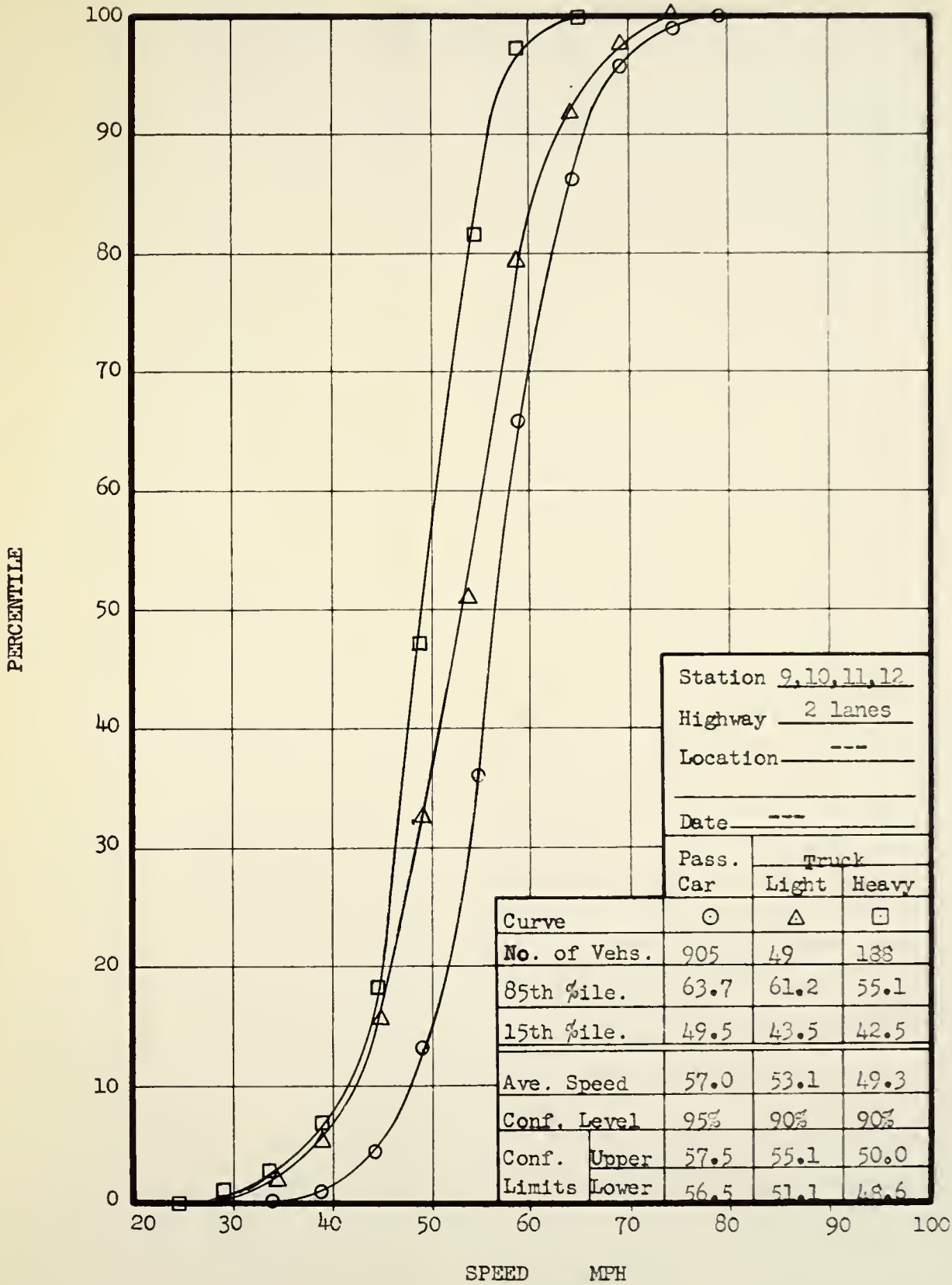

PERCENTILE
100
90
80
70
60
50
40
30
20
10
0
20
30
40
50
60
70
80
90
100
SPEED MPH
Station 9,10,11,12
Highway 2 lanes
Location ---
Date ---
Pass. Car
Truck
Light
Heavy
Curve
No. of Vehs. 905 49 138
85th %ile. 63.7 61.2 55.1
15th %ile. 49.5 43.5 42.5
Ave. Speed 57.0 53.1 49.3
Conf. Level 95% 90% 90%
Conf. Limits Upper 57.5 55.1 50.0
Lower 56.5 51.1 48.6

FIGURE 15

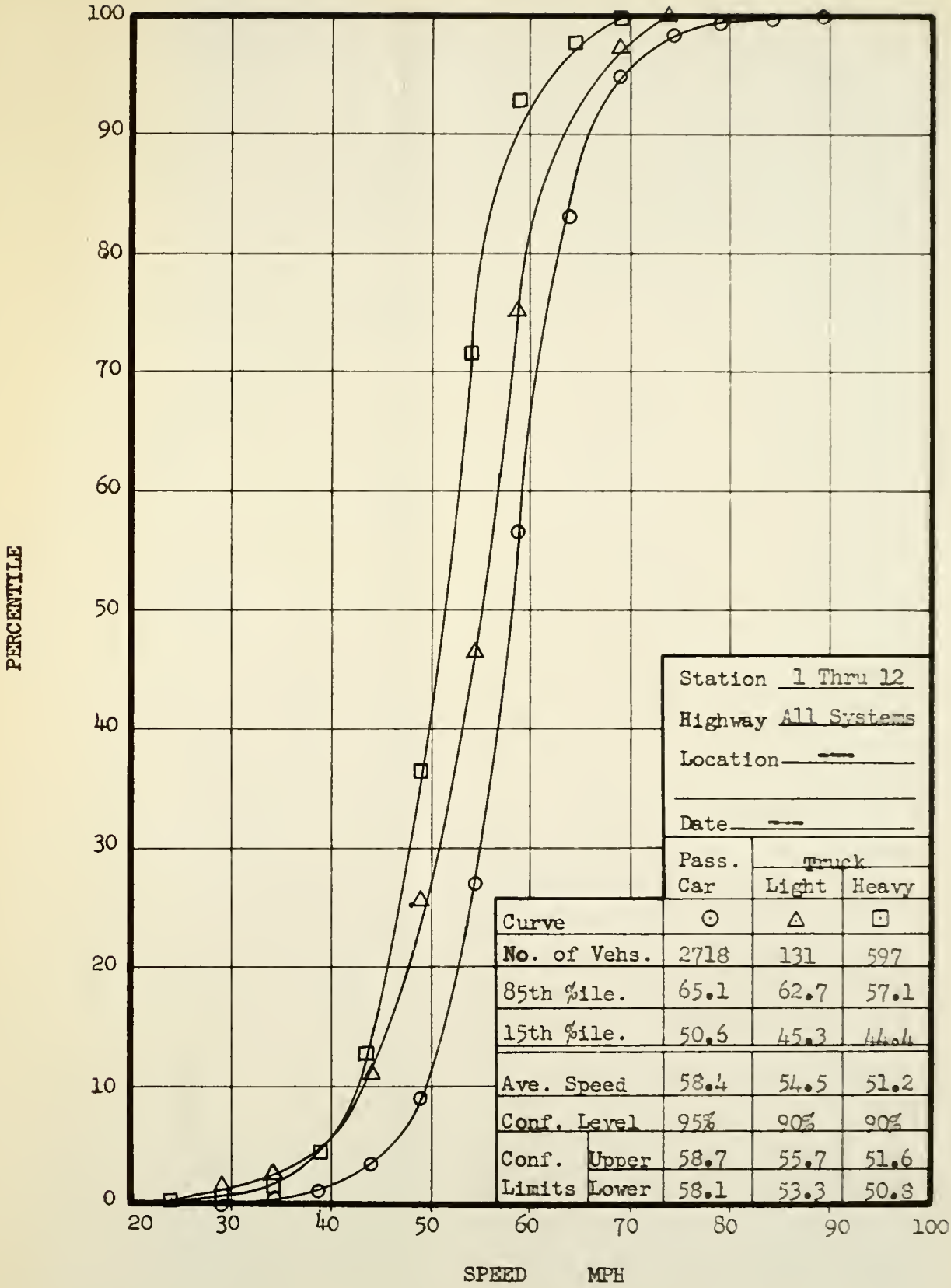

PERCENTILE
100
90
80
70
60
50
40
30
20
10
0
20
30
40
50
60
70
80
90
100
SPEED MPH
Station 1 Thru 12
Highway All Systems
Location ---
Date ---
Pass. Car
Truck
Light
Heavy
Curve
No. of Vehs. 2718 131 597
85th %ile. 65.1 62.7 57.1
15th %ile. 50.6 45.3 44.4
Ave. Speed 58.4 54.5 51.2
Conf. Level 95% 90% 90%
Conf. Limits Upper 58.7 55.7 51.6
Lower 58.1 53.3 50.8

FIGURE 16

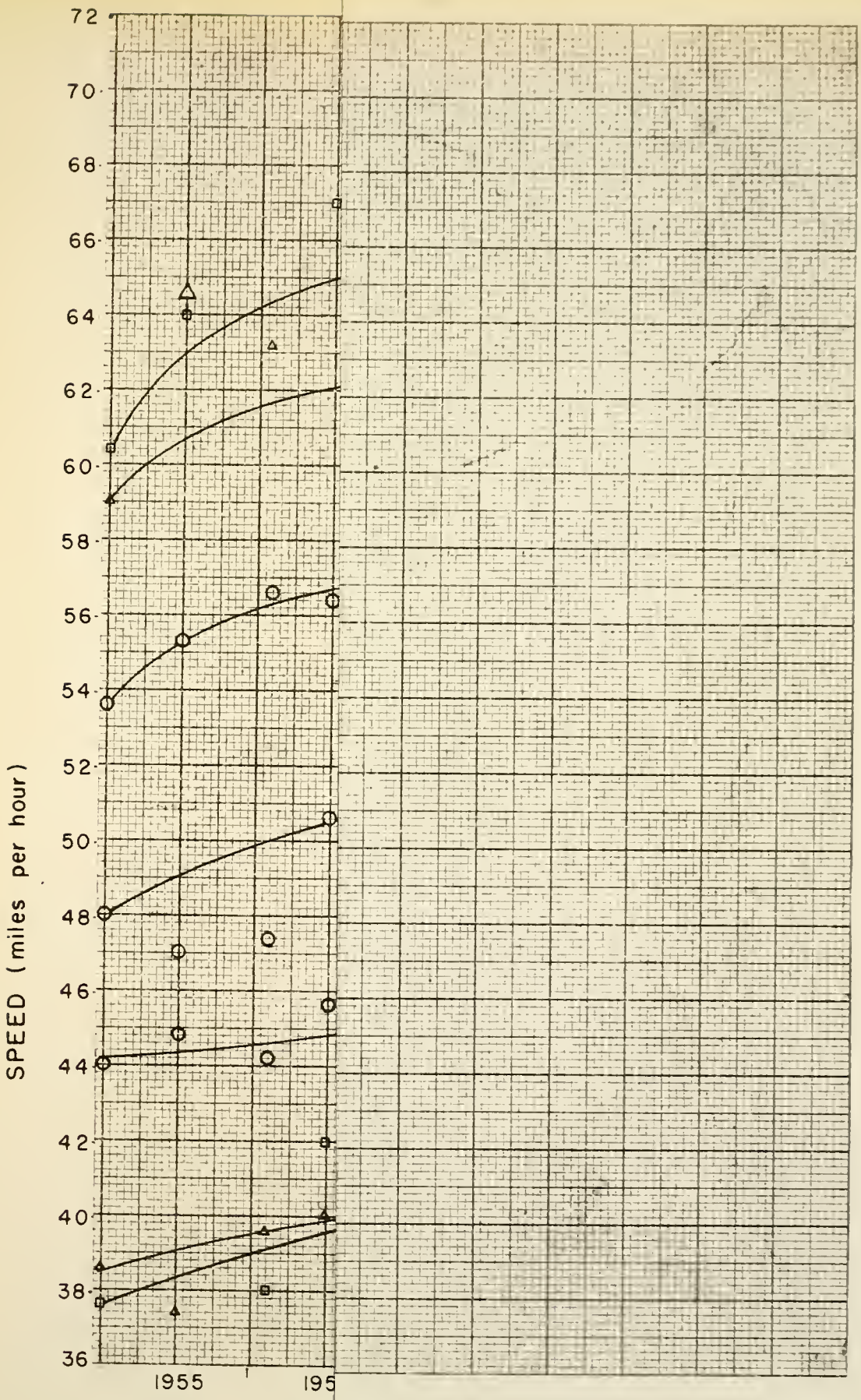

SPEED (miles per hour)
72
70
68
66
64
62
60
58
56
54
52
50
48
46
44
42
40
38
36
1955
195

FIG.17

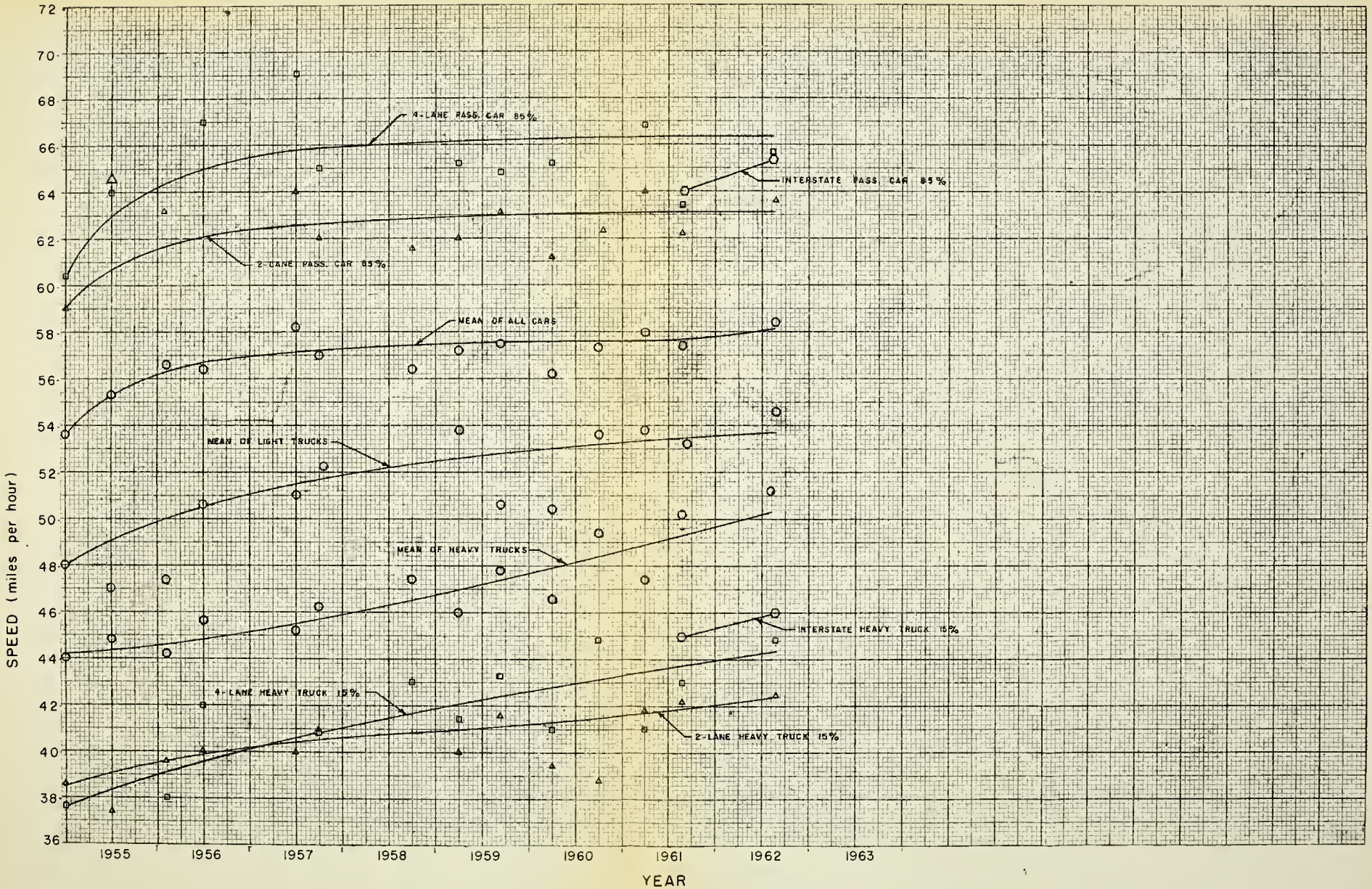


FIG.17

INDIANA RURAL SPEED TRENDS 1955-1962